1909.

FORTY-FOURTH

Annual Report

TO THE

Bath Urban Sanitary Authority

BY THE

MEDICAL OFFICER OF HEALTH

AND

SANITARY INSPECTORS.

FOREWORD.

"*It is not life to live, but to be well.*"

—MARTIAL'S EPIGRAMS, A.D. 70.

BATH:
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BATH URBAN SANITARY AUTHORITY.

MAYOR:
Alderman C. H. Simpson, J.P.

HOUSING OF THE WORKING CLASSES COMMITTEE.

CHAIRMAN:
Councillor C. H. Long.

Aldermen W. F. Gould, J. W. Knight, J.P.

COUNCILLORS:

Miss Hope
J. Howard
R. W. Kirkus
G. Norman, M.R.C.S.
R. J. H. Scott, F.R C.S.
T. B. Timmins
A. W. Wills

Sub-Committee Insanitary Areas.

Chairman—Councillor R. W. Kirkus

SANITARY COMMITTEE.

Meeting every alternate Monday at 11 a m.

CHAIRMAN:
Alderman J. Rubie, J.P.

ALDERMEN:
E. E. Phillips, J.P., M.R.C.S.
E. G. Peacock, T. Vincent.

COUNCILLORS:

A. H. Fortt
Miss Hope
P. Jackman
B. John, J.P.
Preston King, M.D.
W. F. Long
O. Newman
J. W. Paton, M.D.
T. F. Plowman, J.P.
R. J. H. Scott, F.R.C.S.
F. W. Spear
H. J. Thomas
A. W. Thomas, J.P.
T. B. Timmins
O. Windebank
W. Withers

Sub-Committes.

Appointed by the Sanitary Committee.

GENERAL PURPOSES.

Chairman—Alderman E. G. Peacock.

MIDWIVES ACT, 1902.

Chairman—Councillor J. Wilson Paton, M.D.

STATUTORY HOSPITAL MANAGEMENT.

Chairman—Alderman T. Vincent

CITY AND COUNTY BOROUGH OF BATH.

HEALTH DEPARTMENT.

Medical Officer of Health,
School Medical Officer and Superintendent of Statutory Hospital.

William Henry Symons, M.D. (Brux.), D.P.H. (Oxon.), M.R.C.S., F.I.C.
Residence—39, Combe Park, Weston, Bath.
Telephone 39, Weston, Bath.

Medical Attendant of the Statutory Hospital.

Octavius A. G. Collins, B.A., B.C. (Camb.), M.R.C.S., L.R.C.P.

Matron at the Statutory Hospital.

Miss Mary Crofts, L.O.S. Certificate.

Lady Health Visitor for the City.

Miss Elizabeth Axten, C.M.B. Certificate.

Public Analyst and Gas Examiner.

James Wright Gatehouse, F.I.C., 36, Broad Street, Bath.

GENERAL SANITARY STAFF FOR 1910.

Chief Inspector and Inspector of Nuisances, Inspector under Canal Boats Act, Food and Drugs Act, Dairies, Cowsheds, and Milkshops Order, and Shop Hours Act.

Walter A. Craven,
Cert. as Inspector of Nuisances and as Meat Inspector.
Residence—Kirkthorpe, St. Saviour's Road. Tel. 436, Bath.

Sanitary Inspector and Inspector of Tenement Houses.

Walter T. Blake,
Certificate as Inspector of Nuisances.

Assistant Inspectors.

Silas D. Hawkins, and Harold L. Burt, Cert. I.N.

Clerks.

Chief Clerk, Chris. J. Pring. Junior Clerk, William G. Pyatt.

Health Office, Guildhall, Bath. **Telephone 124, Bath.**
Statutory Hospital, Claverton Down. **Telephone 198, Bath.**

SUMMARY OF STATISTICS, 1909.

CITY AND COUNTY BOROUGH OF BATH.
HEALTH RESORT AND CHIEF TOWN OF SOMERSET.

Situation—Latitude 51° 23′ N.; Longitude 2° 21′ W.

Elevation—Varies from 50 feet above sea level on the lower banks of the Bath Avon to about 550 feet on either side, the hills rising to about 750 feet not far from the City.

Mean Elevation—285 feet above sea level.

Geological Formation—Oolitic clays, limestones and sands.

Rainfall—Average of 40 years, 1866-1906, 30·47 inches annually. 1905, 22·79; 1906, 27·24; 1907, 32·32; 1908, 24·13; 1909, 30·16 inches.

Water—Constant service, Corporation Reservoirs.
Moderately hard, spring water.
Average amount, 22 gallons per head.

Sewage disposal almost exclusively by water carriage.

House refuse removed and cremated by the Sanitary Authority.

Area of the Borough—3,338 statute acres land, 44 acres water.

Population—1901 Census, 49,839; Estimated 1909, 50,000.

Density of Population—Per acre, 15; per inhabited house, 5 persons

Number of Inhabited Houses—Census, 1891, 8,933
,, ,, ,, Census, 1901, 9,323;
Number of Occupied Houses—Census, 1901, 9,804;
,, ,, ,, Rate-book, 1909, 10,568.

Assessable Value, October, 1909, £330,868.

Rateable Value, October, 1909, £333,316.

Rates—District Rate, 3/6; Poor-rate, etc., 3/3; Total, 6/9 per £1.

One penny Poor Rate produces £1,263; 1d. District Rate £1,225.

Total Nett Indebtedness £480,555.

Marriages Registered, 459 or 18·4 persons per 1,000 population.

Birth Rate—Average, 1891-1900, 20; 1909, 17·2 per 1,000.

Death Rate—Average, 1891-1900, 18·58.

Crude Death-rate, 1909, 16·1; Net Death-rate, 14 per 1,000.

Recorded Death-rate reduced to standard age and sex for comparison with other districts 12·6 per 1,000.

Comparative Mortality Figure, 869.

Death-rate from seven principal "zymotic diseases," 0·60 per 1,000

Infantile Mortality—82 per 1,000 Births.

Deaths under 5 years of age, 102; or 2 per 1,000 of all ages.

Deaths between 5 and 60 years of age, 217; or 4·4 per 1,000.

Deaths over 60 years of age, 380; or 7·6 per 1,000 of all ages.

Deaths from Phthisis, 45, or ·9 per 1,000 population.

To His Worship the Mayor, and to the Aldermen and Councillors of the City of Bath.

I have the honour of submitting to you the forty-fourth Annual Report on the Sanitary Condition of Bath, counting from the first printed Report of a Medical Officer of Health, or the fourteenth counting only those which I have made personally. I shall give first the most important statistics and then deal with the subjects as desired to by the Local Government Board.

The Death-rate for England and Wales for the year 1909 was 14·5 per 1,000, which is lower than the rate of any year on record. The Crude Death-rate for Bath being 16·1. Excluding deaths among those persons brought to Bath for treatment, the Nett Death-rate was 14 per 1,000, which is lower than that of any preceding year except 1903, this multiplied by the factor for correcting to standard age, and sex, shows a Corrected Death-rate, 12·6 per 1,000. The Death-rate for Bath was 3 per 1,000 below the Corrected Death-rate of the 76 great towns, among which Bath will probably be included at no distant date.

The Infantile Mortality for 1909 was 88 per 1,000 births if we include deaths of Infants brought into Bath Workhouse from outside districts, or 82 per 1,000 births if we count only the births and deaths of Infants of residents. Among Infants born in wedlock the mortality was at the rate of 81 per 1,000 births, while among those classed as illegitimate the mortality was 109 per 1,000 illegitimate births. The Infantile Mortality for England was 109, for Rural England, 98, and for the Bath Rural District 97 per 1,000 births.

The Birth-rate was 17·2 per 1,000 population, while for England it was 25·6 per 1,000. These are the lowest Birth-rates ever recorded for England and Bath.

The Vaccination returns show the result of recent legislation in favour of the "Conscientious" objector to vaccination." Only one half the number of Infants born in Bath are being vaccinated. The safety of the public has been sacrificed to the liberty of the individual and we must be prepared to take the consequences.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

Bath is situated in N. Lat. 51° 21-24′ and W. Long. 2° 20·23′, and is built chiefly upon the Lias and Lias Clays, but the Upper Lias or Midford Sands, Inferior and Great Oolites, and the Fuller's Earth lying between them, are well represented in the higher portions of the city, while Mammal Drift Gravel and Alluvium form the sub-soil near the river, but the deposit of Gravel is more extensive than Alluvium.

Bath lying in a bend in the valley of the Avon has sloping ground with every possible aspect, but the slopes facing South and South-West have been most built upon. The elevation of the city varies from 60 feet on the banks of the river, to about 550 on either side. The mean elevation of Bath being 285 feet, according to my estimate. Half-a-mile outside the Northern boundary, Lansdown rises to about 750 feet above the sea level. The mean elevation cf London is 60 feet above the sea level, or less than 3 feet above Pulteney Weir.

THE POPULATION OF THE CITY OF BATH.

By the census of 1891 the population of the City was 51,844, and by the census of 1901 the population was 49,839. The population in the middle of 1909 may be any number between 48,000 and 52,000. For statistical purposes I estimate the population to be 50,000. The Registrar-General assumes the rate of decrease between 1891 and 1901 to have continued to the present time, and estimates the population in the middle of 1909 as 48,621.

There is nothing to show that the population of the City of Bath has decreased since 1901, every fact points to a slight increase.

Bath is not now an overcrowded city, only some 3 per cent. of the population, 1,510 persons, are living in tenements with more tha 1 2 persons per room. While the number of inhabited houses has increased from 8,933 in 1891 to 9,323 in 1901, the number of tenements of less than 5 rooms has decreased from 5,975 in 1891 to 4,889 in 1901.

THE CLIMATE OF BATH.

The river Avon, coming northward from Limpley Stoke, enters the Bath valley at Bathford and is deflected sharply to the south-west, then making another curve round the spur of Lansdown, it flows away from Bath in a north-westerly direction, the double curve being like the letter S. The variety in aspect of the bordering slopes, and the nature of the sub-soils explain the differences of temperature found in a limited space.

The following records relate to a central low lying area of about 600 acres.

RAINFALL.

Observations taken at the Royal Literary and Scientific Institution, extending over 40 years, 1866 to 1905, give the mean Annual Rainfall, 30·48 inches. The greatest amount measured in any year was 42·57 inches in 1903. The least amount was 21·38 in 1870. In 1909 it was near the average, namely 30·16 inches. The month with the highest monthly average is October, 3·05 inches, while the lowest average is in May, 2·03 inches.

TEMPERATURE.

Observations taken at the Central Climatic Station, Henrietta Park, for ten years from January, 1900 to December, 1909, give a mean Temperature of 49·6° F. The mean Winter Temperature is 41°, Spring, 52°, Summer, 59°, Autumn, 46°. February is the coldest month, the average mean Temperature being 39°, and July the hottest with an average of 61·5°. The mean Temperature for 1909 was 48·0° F., 1·6° below average.

SUNSHINE.

Bath is well placed for getting a full amount of Winter Sunshine, compared with the north-east of England it has 51 hours more "possible sunshine" in the Winter, and 58 hours less "possible sunshine" in the Summer. The sunshine recorder only indicates bright sunshine, which is powerful enough to leave a charred mark on a card, when brought to a focus by a ball of glass. The records for five years show an average of 295 hours "bright sunshine" during the Winter months, 575 hours during the Spring, 590 hours during the Summer and 251 during the Autumn months. A yearly average of 1,711 hours of bright sunshine. The records for 1909 are :—Winter, 258 ; Spring, 672 ; Summer, 568 ; October, 111 ; November, 115 ; December, 64 hours of bright sunshine ; Autumn, 290 ; Year, 1,788 hours.

RECENT LEGISLATION. HOUSING, TOWN PLANNING, &c., ACT, 1909.

This Act came into force on December 3rd, and amends the law relating to the Housing of the Working Classes as well as providing for Town Planning Schemes. The following will considerably modify our control over tenement houses:—

In a contract for letting a house of a certain rental (not exceeding £16 in Bath until the population according to the census reaches 50,000 when the figure will be £26) there is implied a condition that the house is at the commencement of the holding in all respects reasonably fit for human habitation, and this condition includes an undertaking that the house shall, during the holding, be kept by the Landlord in all respects reasonably fit for human habitation. The landlord may appeal to the Board against any notice or demand or order. These provisions do not apply to certain leases for three years or more. (Sec. 15).

The power of making by-laws with respect to houses let in lodgings given by the Public Health Act, 1875, is extended in the case of houses intended for the working classes, so as to give the authority powers against the owners in addition to or in substitution for any other person having an interest in the premises. (Sec. 16),

Sections 17 to 21 of the Act amend the precedure for closing orders and impose the following duties on a local authority and their officers:—

(*a*) To make inspection of their district from time to time.
(*b*) To comply with such regulations and to keep such records as may be prescribed by the Board.
(*c*) To make closing orders.
(*d*) On a closing order becoming operative to serve notice of the order on every occupying tenant.
(*e*) To determine closing orders when premises are rendered fit for human habitation.
(*f*) To prescribe regulations for securing the proper ventilation and lighting of rooms habitually used as sleeping places, the floors of which are more than three feet below the surface of the adjoining street [See Sect. 17 (7),] which does not come into operation until the 1st July, 1910.
(*g*) To consider the question of the demolition of a dwelling house in respect of which a closing order has remained operative for three months.
(*h*) In certain events to order the demolition of a dwelling house.

Part II. TOWN PLANNING.

Town planning schemes may be made as respects any land:—

(*a*) Which is in course of development, or (*b*) which appears likely to be used for building purposes with the general object of securing—

(i) Proper sanitary conditions; (ii) amenity (iii) convenience in connection with the laying out and use of the and land, of any neighbouring lands. [Sect. 54(1).]

In conjunction with Mr. Councillor Wills and the City Surveyor I had the privilege of visiting several German Towns under the auspices of the National Housing Reform Council during the Easter vacation. We found that houses in Germany are not in any way better constructed or internally arranged than houses in this Country, but that during the recent extensive growth of many towns advantage has been taken of scientific systems of town planning, and that lavish expenditure on roads and public buildings, under the exceptional powers possessed by German Town Councils, had produced results which filled us with admiration when comparing with the industrial towns in Great Britain. Bath and Edinburgh are I believe the only towns in this Country where similar attempts have been made. The system adopted in Bath may be well seen in a map which Mr. Fortune has amplified from one found in our old records and which is reproduced on a small scale on page 37 or central page. The thin dark lines show the proposed plan of building.

This scheme of town planning in Bath was commenced by J. Wood, senior, a resident in Yorkshire, who submitted his design to Mr. Gay, a local land owner, in March, 1726. Wood came to Bath to reside in 1727, and in January, 1729 began work which resulted in the erection of Queen Square, Gay Street, Circus, and some of the streets immediately adjacent to Queen Square. He died in 1754; his son John carried on and extended the original design, including Brock Street, and similar adjacent streets, Royal Crescent, Alfred and Bennett Streets, Assembly Rooms, York Buildings and Fountain Buildings.

Thomas Baldwin, Eveleigh, Palmer and Masters contributed largely to the plans shown in Masters' map of 1792. Some portion of the plan remains to be carried out in the future. At present attention is being directed to improve the streets we have and during the stewardship of our present City Surveyor vast improvements have been made in districts inhabited by the working classes, vide page 12, Annual Report 1908, etc.

Facing Masters' map is a copy of "the oldest extant Delineation of the City representing its plan as it was in 1572."? Wood copied this for his Description of Bath (1765) and says:—"The reprinting Doctor Jones's view of the City may be the means of informing posterity of ſeveral things already grown obſolete; it will demonſtrate the State of Bath ſoon after the Reformation." Mr. Mowbray A. Green in his "Eighteenth Century Architecture of Bath" shows that this map is undoubtedly copied from John Speed's, which is found in his work, "The Kingdom of England Described," dated 1610.

THE HOUSING OF THE WORKING CLASSES.

No workmen's dwellings have been built by the Corporation during the past year, difficulties inseparable from the acquisition of land have hindered the extension of the Dolemeads scheme. These difficulties have now been surmounted and at the time of writing building operations are proceeding rapidly in Middle Lane, and probably by the end of the year the forty-two houses will be increased to fifty-six, which, with the thirty-four in Lampard's Buildings, will bring the total number built by the Corporation up to ninety, a very fair record for work in this direction. The illustration on page 13 will show the type of house in Excelsior Street, and those on pages 14 and 15 the methods adopted to bring the houses above flood level.

There is a strong wish to deal with the low lying portion on the north side of the river, adjacent to the Old Bridge, in the same way, and five years ago the City Surveyor submitted two schemes for carrying this work into effect. (See also page 71).

Scheme I.—This comprises the construction of a high level road 36 feet in width, for the most part running from Peter Street, across Corn Street, and down Little Corn Street, which it is proposed to widen on the west side.

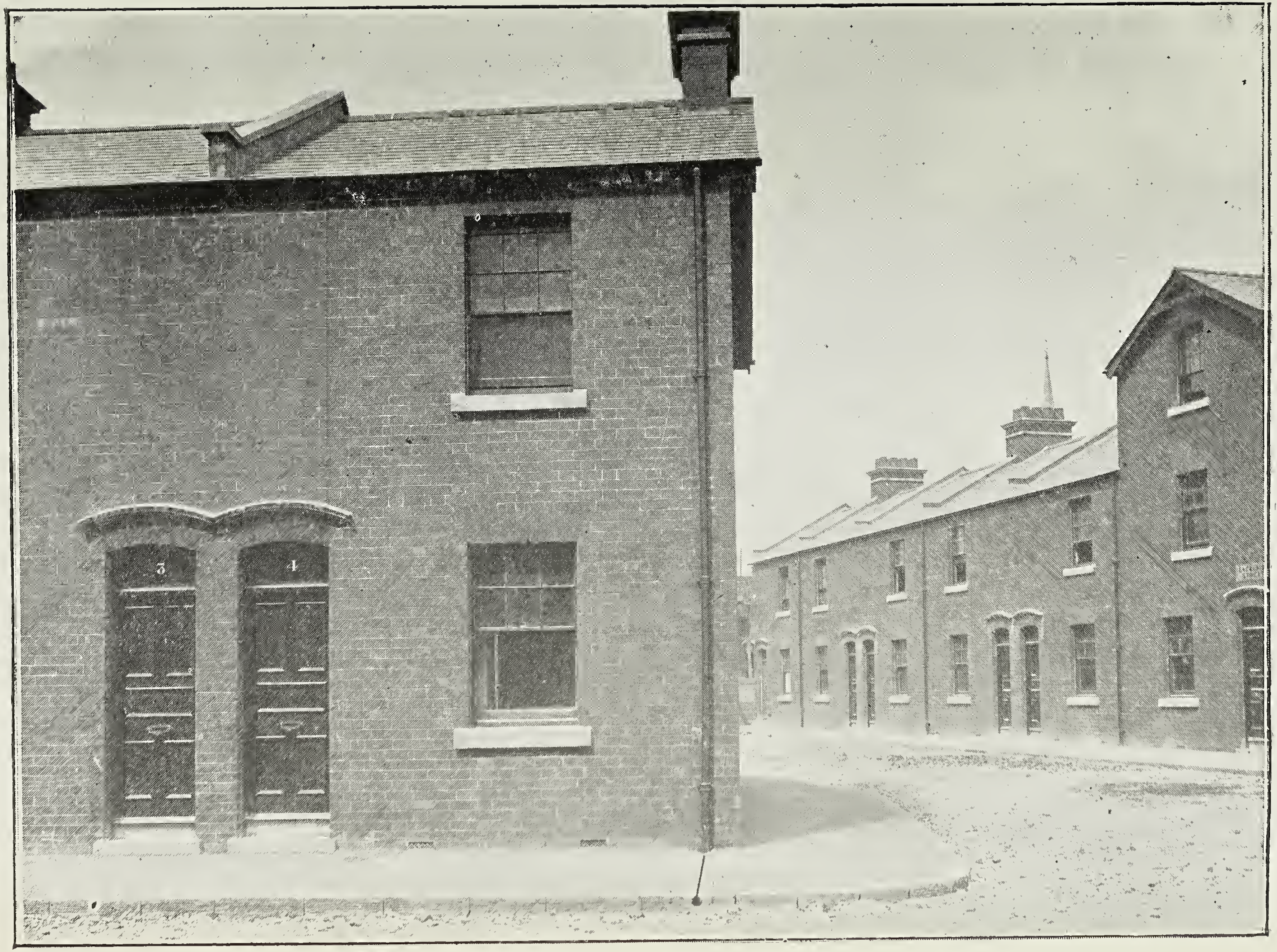
Inclines of moderate gradient to connect this high level road with the existing low level roadways New Quay, Back Street and Corn Street, and raised footpaths, (retained by walls topped by suitable railed fences) to give access to the houses where they stand above the level of the existing roadways of which it is impracticable to raise the level.

The scheme proposes to erect upon this site, when cleared and raised, 54 dwelling houses of varying type and size, with rentals mostly ranging from 4/- to 7/- per week, and provide sites for six factories, workshops, or stores.

The cost was estimated to be about £40,000, and the annual payment about £1,000 in excess of the estimated rentals.

Scheme II.—This deals with the area bounded on the north by Corn Street, south by Somerset Street, west by the Ambury, and on the east side by the western boundaries No. 1 Corn Street and No. 15 Somerset Street.

The cost was estimated at about £20,000, and the annual payment about £470 in excess of estimated rentals, the loans being for 45 years.

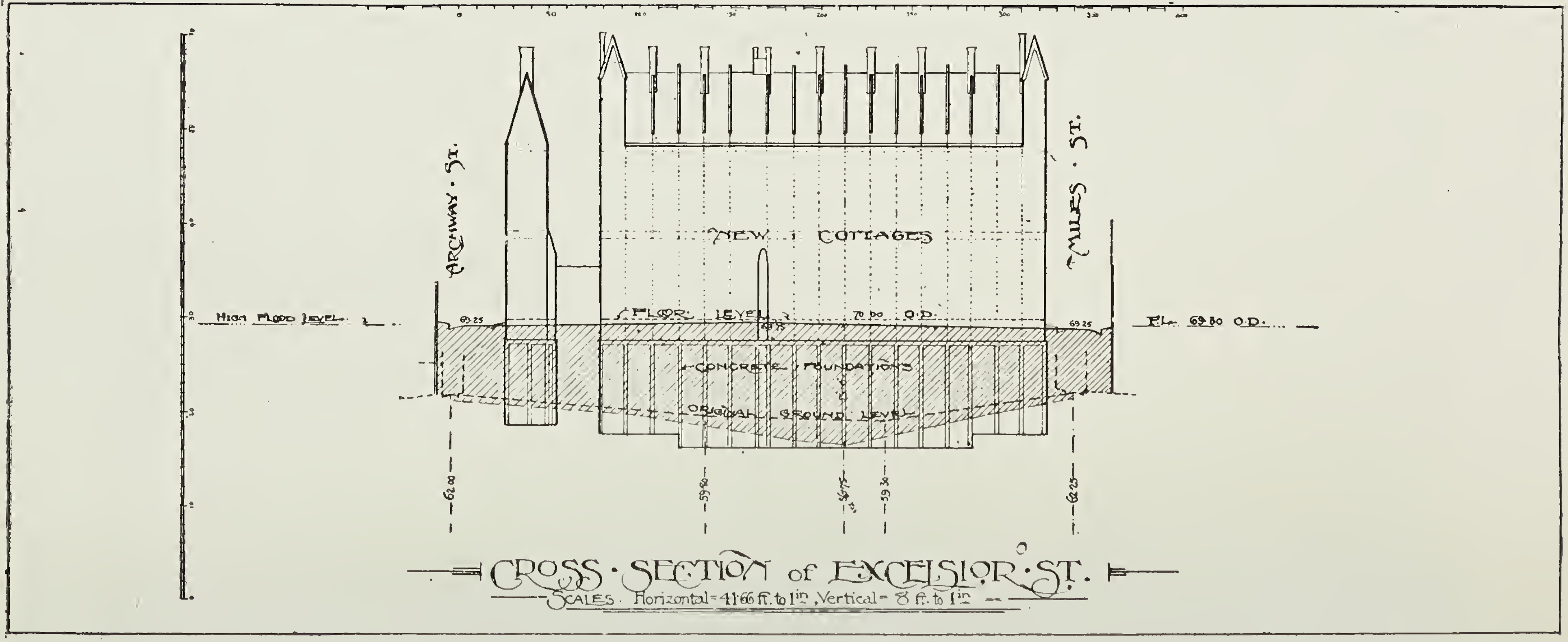


THE NEW WORKMEN'S DWELLINGS.

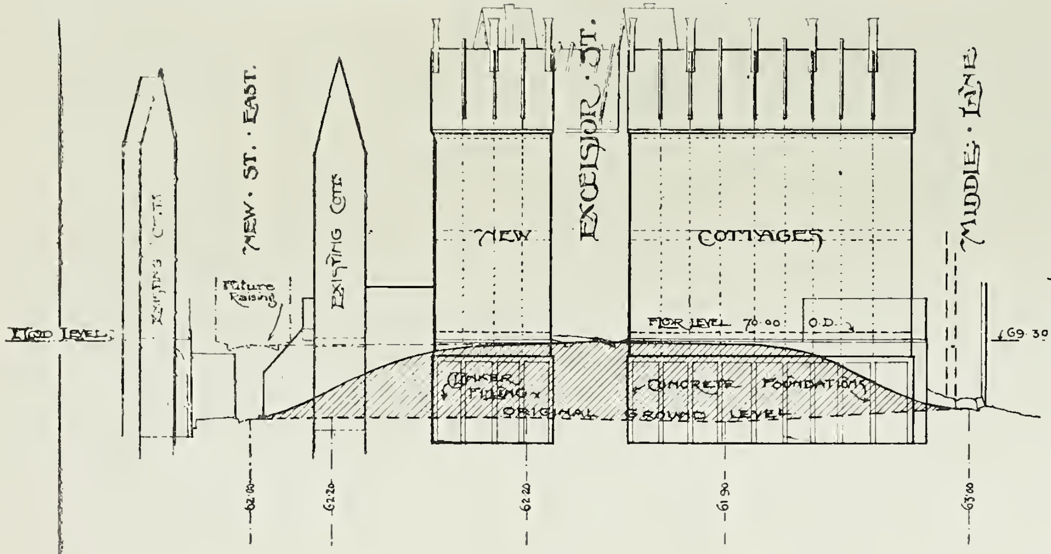
CITY OF BATH

DOLEMEADS HOUSING SCHEME.

SECTIONS SHOWING SITE RAISING STREET IMPROVEMENT.
(Scales reduced).

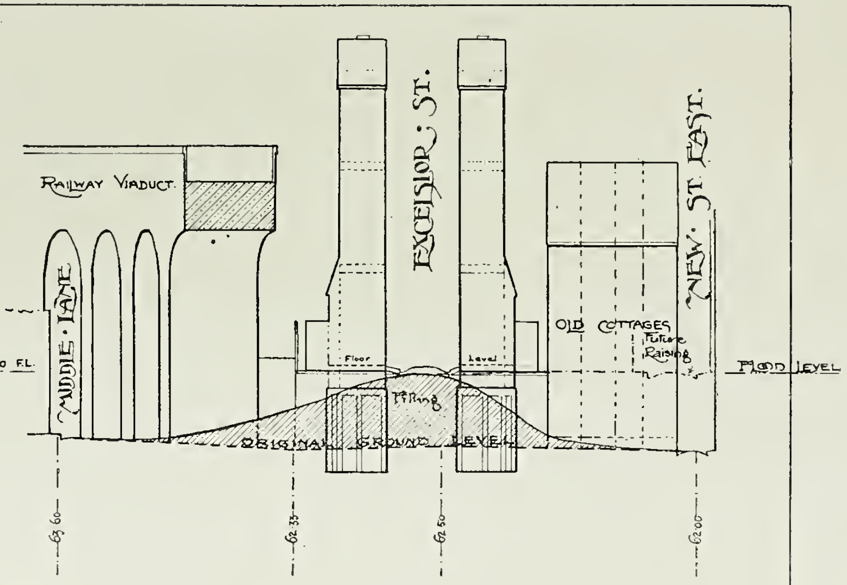


CROSS · SECTION of EXCELSIOR · ST.
SCALES. Horizontal = 41.66 ft. to 1in, Vertical = 8 ft. to 1in



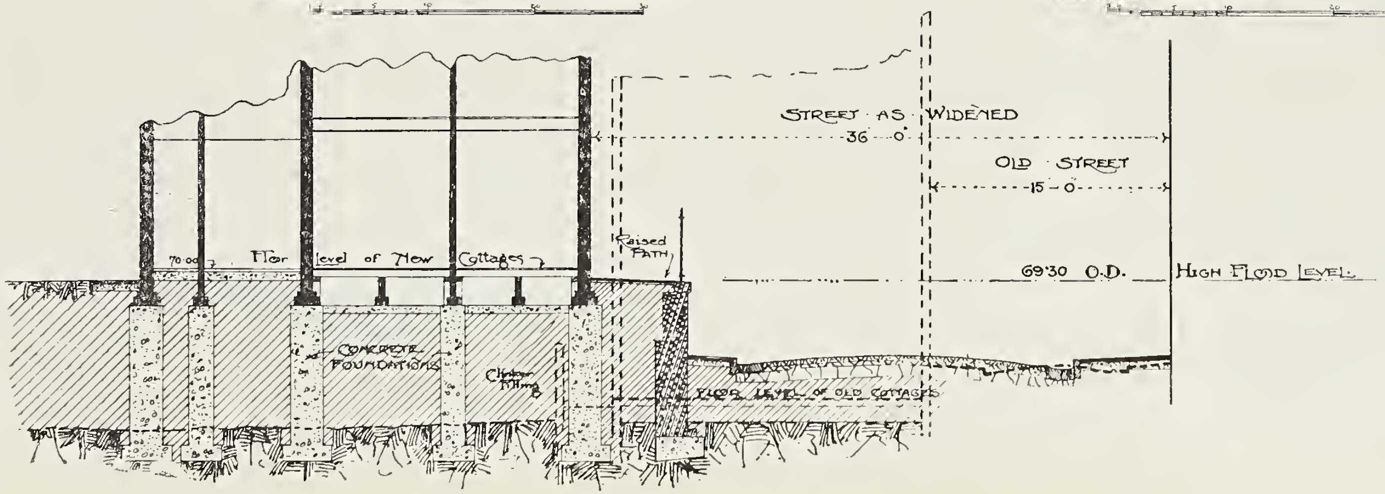
CROSS · SECTION of ARCHWAY · ST.

SCALES — Horizontal = 41·66 ft. to 1 in., Vertical = 8 ft. to 1 in.



CROSS · SECTION of MILES · ST.

SCALES — Horizontal = 41·66 ft. to 1 in., Vertical = 8 ft. to 1 in.



CROSS · SECTION of MIDDLE : LANE.

SCALE : 3/16 in. to 1 foot.

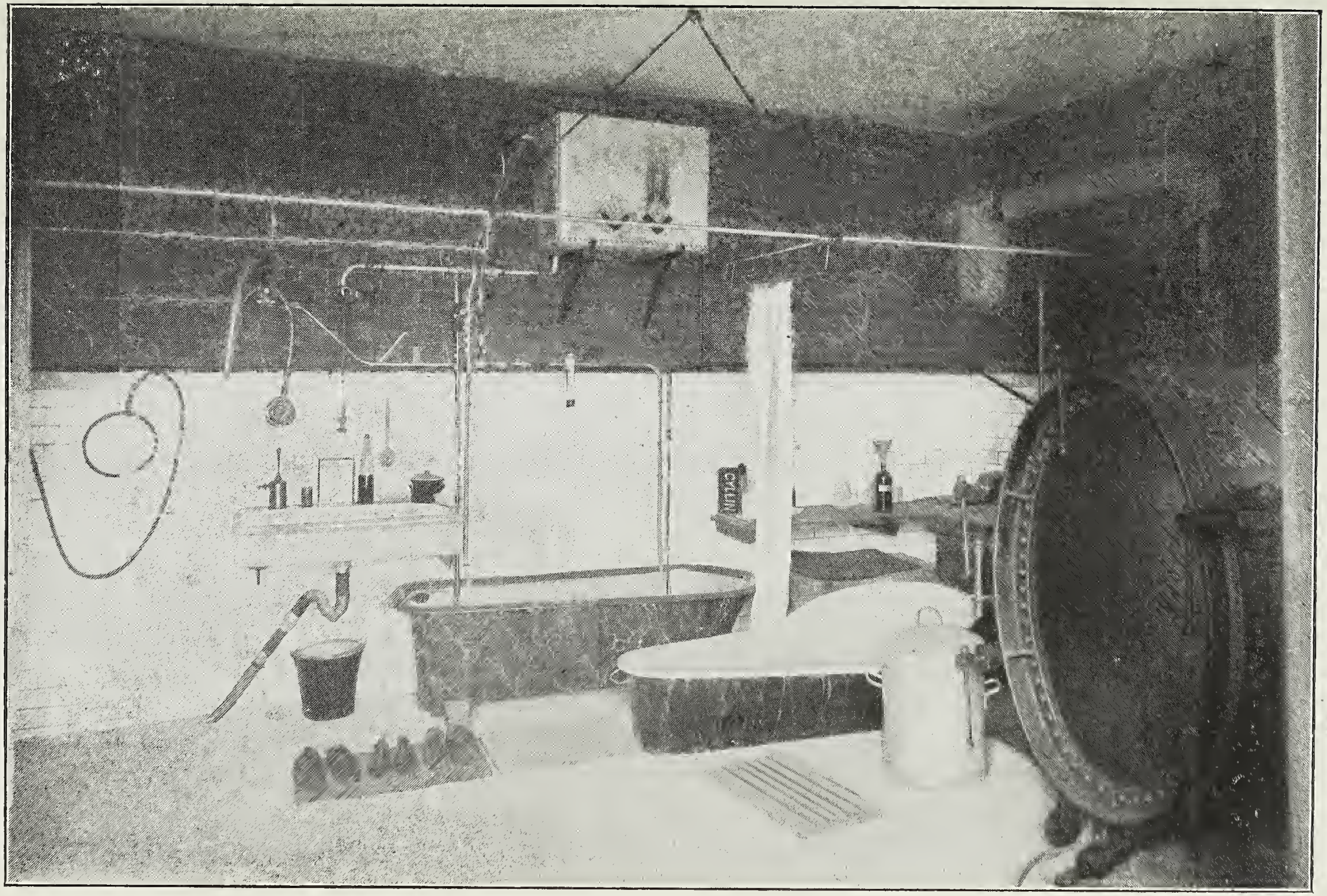
Chas. R. Fortune.
City Surveyor,
11 II 10 Bath

CHILDREN ACT, SECTIONS 12 AND 122.

Section 12 was quoted in my Report for 1908, page 38, as providing for the punishment of persons who neglect their children by failing to provide medical aid, after their attention has been called to the necessity of such aid in the course of medical inspection of school children, but it appears that the Education Authority has no power to initiate proceedings under Part 2 of this Act. There can be no doubt that much good might be done by drawing the attention of parents to their liability. A very large proportion of school children need more medical attention than they get, notably for their teeth and eyes, but very little attention will be paid to the recommendations of the Medical Inspector of School Children unless this section is enforced.

Section 122, relating to the cleansing of verminous children, being in Part 3 of the Act is enforced and the results have been marvellous. Inspection has shown that from 10 to 60 per cent. of the girls attending Elementary Schools had verminous heads, this condition being common in all parts of Great Britain until attention was called to the subject by Reports of School Medical Officers. Now, wherever section 122 has been efficiently administered, a very different condition obtains, but no doubt constant vigilance and an occasional prosecution will be necessary to maintain cleanliness.

In June the Education Committee sanctioned the plans for a Cleansing Station in Milk Street. A room, next door to the Milk Street Baths and Washhouses, was rented and fitted with a bath and large sink, a supply of hot and cold water and towels being provided by arrangement with the Baths, but no provision was made for disinfesting clothing and children infested with body vermin could not be efficiently cleansed. Fortunately body vermin are very rare among the school children of Bath, but about a score of cases were discovered during the inspection of 6,500 children. It was, however, no good serving notices threatening proceedings unless we were prepared to "cause the person and clothing of the child to be properly cleansed in suitable premises and with suitable appliances." The Sanitary Committee came to the aid of the Education Authority and authorised the provision of a bath, etc., at the disinfecting station. These arrangements have only just been completed and twelve children were dealt with on December 10th, and the following days. The illustrations on page 17 show the arrangements at the Steam Disinfector. Those at Milk Street are similar but there is no Steam Disinfector.



CLEANSING STATION, No. 2.

We find that the spray shown in the left-hand corner is of no use for this purpose, children are frightened by it, but for regular use at the schools spray baths are undoubtedly the best form. The appliances and alteration to fittings cost about £35 at each station.

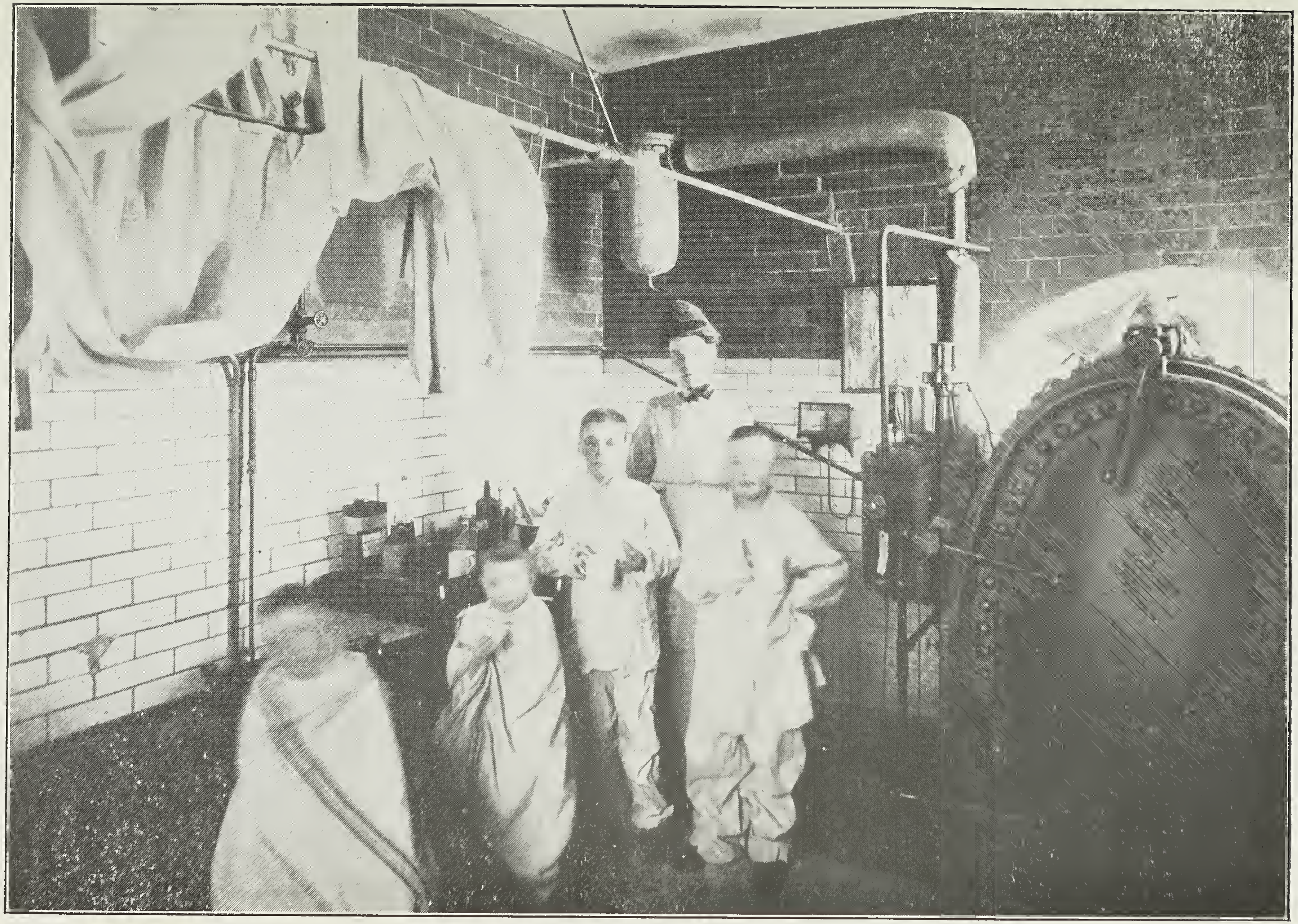
The mode of proceeding is as follows :—

The School Visitor having reported that certain children continue to be verminous, although the parents have been served with the Statutory Notices, arrangements are made for an old cab, kept exclusively for this purpose, to be at the school at a definite hour. The School Nurse brings out the children and gives to the Inspectors, who are waiting at the entrance, a list of names and addresses. The children are brought to the Disinfector, the Inspectors proceed at once to the homes of the children, serve the notices for cleansing and offer to remove the bedding for treatment by steam. They also offer to spray the rooms. The driver leaves his cab to be sprayed while he takes a cart to the various houses for bedding, etc. Everything has been got ready for the children ; they undress on mats and are wrapped in a towel which goes into the bath with them,—the children themselves put their clothes into a cradle of the Steam Disinfector. Their boots are put into an iron vessel, where they are sprayed with cyllin. The iron vessel is then covered and placed in the Steam Disinfector with the clothing ; the mats on which the children stood are also treated in the same way and the disinfesting chamber is sealed. No steam is allowed to enter the chamber but the jacket is heated by steam at 30lb. pressure. When the chamber has been closed 10 minutes there is a positive pressure of about 3lbs. per square inch due to air, watery vapour, and cyllin. The arrangements for producing a partial vacuum are then worked for 10 minutes, a minus pressure of about 20lbs. being attained, after which hot air is admitted to the chamber and the heat maintained for a quarter of an hour. The process takes from 40 to 45 minutes and no sign of life exists in the clothes afterwards and the eggs are all altered in appearance. It would take at least twice as long if steam were admitted to the chamber. Four children can be bathed while their clothes are being disinfested. After bathing, the children are dressed in pyjamas and given a cup of cocoa and a piece of bread and butter, while waiting for their clothes. They are subsequently taken back to the school under supervision, walking at least part of the way if the weather is cold. Most of the children are very poor and have dinner provided at the school.

The whole work is done by our regular staff, and it is hoped that it will not be necessary very often.

The cleaning of heads is much simpler, the nurse is able to attend to seven or eight in one morning. Paraffin is no longer recommended, as it was found that children came to school with their hair saturated with this inflammable material.

The following are the notices served when clothing is verminous.



CLEANSING STATION, No. 2.

1st Notice.

CHILDREN ACT, 1908.

NOTICE TO CLEANSE CHILD.

BATH LOCAL EDUCATION AUTHORITY.

To..

....

Take Notice that the Bath Local Education Authority having received from their Medical Officer, or other authorised person, a report that the person (or clothing) of the undermentioned child is infested with vermin (in a foul [or filthy] condition) hereby require you to properly cleanse the person (clothing) of the child within twenty-four hours after the receipt of this notice, in accordance with the written instructions accompanying this notice. **And take further Notice** that if you fail to comply with this requirement within such twenty-four hours the child may be removed from school and be properly cleansed at such premises as the Local Education Authority may provide.

Name of Child...
Dated the...................*day of*...............................19

FREDK. D. WARDLE, *Town Clerk.*

Served (*together with Instruction Form*..........) *on the above-named*.................. ..
.... *personally* [*or by leaving same at his place of abode*] *this*. ....
day of........ .... 19..... ...*at*........... *m.*

With Notice as to person infested with vermin, serve Form **A.**
Do. do. in a foul or filthy condition, serve Form **B.**
Do. clothing infested with vermin, serve Form **C.**
Do. do. in a foul or filthy condition, serve Form **D.**

Instructions.
Form. C.

CITY OF BATH.

Where the clothing of the Child is infested with vermin.

Children Act, 1908. (Section 122).

INSTRUCTIONS.

To the Parent or Guardian of the Child, describing the manner in which the cleansing of a Child may be best effected.

When the clothing of the child is infested with vermin it should be soaked in water containing some disinfectant, such as Jeyes' Fluid, in the proportion of two egg-cupfuls to one bucket of water, or it should be put into a tin box and covered with a cloth moistened with the same disinfectant, until it can be moved to the Boiler or Steam Disinfector. The floor on which the clothing has been moved must also be washed with disinfectant.

All clothing infested with vermin must be boiled or steamed or baked for half an hour.

Persons who have not Baths at home may take their children to Milk Street Public Baths, where a bath can be obtained for 3d., and washing tubs and drying rooms may be used for a small charge.

SECTION 122. (4)—Where, after the person or clothing of a child has been cleansed by a Local Education Authority under this Section, the parent or guardian of, or other person liable to maintain, the child, allows him to get into such a condition that it is again necessary to proceed under this Section, the parent, guardian, or other person shall, on summary conviction, be liable to a fine not exceeding ten shillings.

This Section of the Act will be strictly enforced.

2nd Notice.

CHILDREN ACT, 1908.

Notice Leading to Proceedings.

BATH LOCAL EDUCATION AUTHORITY.

To..

....

Take Notice that although the person (or clothing) of the undermentioned child has been cleansed by the Local Education Authority in accordance with the above-named Act, and after due notice to you served on the............day of..........................19......you have allowed the said child to get into such a condition that it again is necessary to proceed under the Act. You are therefore liable, on summary conviction, to a fine not exceeding Ten Shillings, and the Local Education Authority propose to apply for a summons against you if the person (or clothing) of the child is not forthwith properly cleansed; **and take further Notice** that if you again allow the said child to get into such condition as aforesaid a summons will be taken out against you without further notice.

Name of Child.............. . ...
Dated the...................*day of*................................19

FREDK. D. WARDLE, *Town Clerk.*

Served on the above-named......... ....
personally [*or by leaving same at his place of abode*] *this* ....
day of.......................19.........*at*.....................*m.*
....

INSECTS AS CARRIERS OF DISEASE.

The importance of insects as carriers of infection has been officially recognised by the Local Government Board and a preliminary report has been issued concerning the more important flies found in houses. The Journal of the Incorporated Society for the Destruction of Vermin also contains much information as to the life history of various insects and this subject cannot be neglected by Medical Officers of Health, and indeed for many years has received attention.

The following is a quotation from my Report for the year 1899, page 24:—

> "Malaria, or marsh fever, which was by many thought to be caused by the impure air of swampy ground is now known to be due to the infection by the mosquito, which frequents pools of water and rice fields. In England the common house fly probably serves as a general carrier of germs; that it can so act is easily proved experimentally. If a fly is made to walk over a surface moistened by a culture of micro-organisms and afterwards on bread or jelly, the line of march of the fly will be marked by growths of the particular organism, if the bread or jelly is afterwards kept in a warm dark place. In the same way a fly can no doubt carry germs from the dung, amidst which it first sees light, to carcases in the adjacent slaughter-houses. Once placed on meat the organisms multiply rapidly and every fly which visits such meat may obtain a supply of organisms to pass on to the next article of food upon which it alights. The organisms or bacilli upon the meat will perish by cooking, but for some days the uncooked meat may be the happy hunting ground of numerous flies. In many houses the pantry, the water-closet and the rubbish heap are side by-side, and every facility is offered for the transference of offensive matter from one place to another. In our present state of knowledge it is impossible to estimate the extent of evil."

From further experience I should add to this statement the suggestion that vegetables brought into sculleries with adherent soil, which is very liable to be contaminated by manurial dressing, may possibly serve as a source of infection. I am aware that flies do not feed on vegetables, but even a small portion of adherent polluted soil would be attractive to them and a single fly passing from such a particle to the milk jug would set up fermentive processes which could produce typhoid fever.

The United States Department of Agriculture has published recently a report by Professor Howard, their entomologist, in which it is stated that, "assuming that one-half of a fly's output of eggs hatch out and live to raise families of their own in thirty days the number of flies is 216,000, and in forty days over twelve millions."

We have very few cases of typhoid fever in Bath and I am able to make personal inquiry into the cause of most cases. As a general rule no cause can be found and I have been almost driven to conclude that typhoid fever can originate from organisms which are normally non-virulent becoming virulent owing to some change of environment of the organism or its host, but we cannot afford to disregard the possibility of infection by flies in the way I have indicated, and, in almost every case which I have investigated there has been this possibility. A crusade against insects invading houses should be recommended to all housewives and I am hopeful that the active measures now taken to disinfest verminous children may prevent much disease.

"Flies breed all the year round in warm rooms, but only in the summer months out of doors, and then only under suitable conditions, very dry or very wet weather is fatal to them. They may be generally found in bakehouses, or in sculleries,, a temperature varying from 65°F. to 75°F. being the most suitable to them. Moist bread is perhaps their best food. Eggs are deposited in small bundles of about fifty and at the temperature of 70°F. are hatched in twenty-four hours. In cold weather the eggs retain their vitality indefinitely. The larvæ or maggots grow rapidly, when food is available, they shed their first skin in thirty-six hours, their second about four days after this, and their third in another five and a half days. The whole larval period occupies eleven days. The pupal or chrysalis stage usually lasts about ten days; at 77°F. it may be only three days, but at a low temperature the "perfect insect" may not emerge for several months." (Mr. J. P. Jepson's report to the Local Government Board).

The extent of the flight of house flies, or striking distance, has also been investigated. A peculiar species of fly, *Protocalliphora groenlandica*, Ztt., imported with old bones, used for making glue, was found in some numbers in the kitchen of a London County Council School about 150 yards away from the glue and size works. The Common House Fly is most numerous in houses, July to September, but still common in October, it may live from six weeks to four months. Flies do not grow larger, but a small fly —the Lesser House Fly—usually appears in houses somewhat earlier in the year than the Common House Fly, deposits its eggs in decaying animal and vegetable matter.

The "Stable Fly" swarms in cow sheds, and is common about farmyards, stables, and the wooden fences of pasture fields, from August to October. It is a biting fly; both sexes suck blood, attack human beings as well as horses and cattle, and inflict a painful bite. (Mr. E. E. Austen's Report.)

THE COMMON FLEA.

The common flea is interesting on account of its connection with plague and other diseases. A flea which has fed on an infected animal, retains the virulent microbe in its intestine for five days when fed on healthy animals. It suffers no inconvenience from the presence of the bacillus, although the plague bacillus evidently multiplies in a flea's intestine since the number goes on increasing up to the fifth day. The flea can only transmit the virus during the first two or three days after its own infection. Verybitski has shown by numerous experiments that it takes at least five infected fleas to give plague to a healthy animal."

The flea does not appear to be very prolific :—

It lays its eggs at all times of the year, varying in number from one to five, spherical or ovoid in shape, of a pearly-grey colour. These are deposited not, as with lice, on the body or garment of the host, but in the interstices of the floor or carpet.

The egg gives issue to a worm-like larva provided with organs of mastication. It feeds on vegetable or animal detritus and inhabits sand or dust. The larva is quite small, whitish in colour, and not easily to be distinguished from the various other larvæ that are met with in the floors of dwellings.

In about a week the larva reaches its full size. It then becomes lazy, ceases to eat, and weaves for itself a cocoon of fine white silk.

The fully developed insect comes out of the cocoon in from seven to fourteen days, having accomplished its evolution in about three weeks.

The young flea can do without food for a week or two, so that it lies in wait for a favourable opportunity of obtianing a supp ly of blood.

The average duration of the life of a flea is—on the rat forty-one days, on the guinea-pig twenty days, and on man twenty-seven days.

Much moisture is inimical to the developement of the flea, and the same may be said of the other extreme of dryness.

Fleas reproduce their species all the year round, but with less zeal in the month of June. A temperature above 90° F., hinders flea reproduction and delays the development of the larvæ.

Drs. Bannerman & Kapadia,

Plague Commission Report.

THE MIDWIVES ACT, 1902.

The Midwives Act is administered by a Sub-Committee of the Sanitary Committee, and the Medical Officer of Health is the Inspector of Midwives. There are now twenty-one Midwives on our Register, one less than last year. During the year three midwives have given up practice, but two others have given notice of intention to practice and as they are certified midwives they have a right to practice in Bath on giving due notice. Thirteen registered midwives reside within the City and eight in adjoining districts. Five of the former and one of the latter have passed a qualifying examination, fifteen being certified as in practice before July, 1901. The midwives at the Workhouse are not included in our returns as they are acting under the direction of the Medical Officer, and the twenty-two births which occurred in that institution are included among those attended by medical men.

The total number of births registered was 862, 17·2 per 1,000 pop., of which 539, or 62 per cent., were attended by midwives. This is the lowest birth-rate recorded for Bath, the next lowest being 17·8 in 1907. There were 25 stillbirths among cases attended by midwives, making a total of 564 cases, of which 277, or nearly one half (49 per cent.) were attended by the nurses of the Rivers Street Institute. Three "bona fide" midwives attended 197 cases, three others attended 50 cases, six attended a total of 30 cases, an average of five cases a year, three attended only two cases and four midwives only had one case during the year. Medical aid was called in 82 cases, 62 cases being in connection with the Rivers Street Institute, and 20 among the three leading midwives. Sixteen other midwives did not think it necessary to call for medical aid in any case. The infantile mortality among cases attended by midwives and cases attended by medical men was approximately the same. The Health Visitor does not offer advice on feeding and care of infants when a medical man attended the birth. There was only one death during the year among the twenty-two infants born in the Workhouse in addition to two stillbirths.

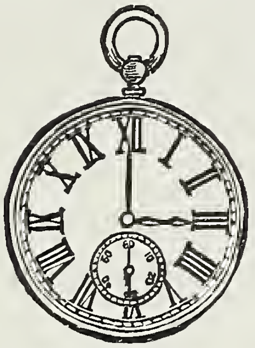
Taking the returns of five years the proportion of male to female births was 1,036 males to 1,000 females, which is about the English average.

Among mothers under 25 years of age the proportion of male to female children was 1,067 to 1,000, and among mothers over 35 years of age 942 male children to 1,000 female children, but as these returns only include 2,657 births where the age of the mother was known, the figures are too small to be of much value.

It is interesting to note that the proportion of males to females in those births attended by medical men was 1,011 males to 1,000 females.

LEAFLET ON THE CARE OF INFANTS. 4a

HOW TO REAR HEALTHY CHILDREN.



HAVE A TIME FOR EVERY PURPOSE.

Keep Clean. Give a warm bath at least once a day. Wash floors of rooms and passages regularly, do not sweep them. Keep all food in fresh air, lightly covered.

Avoid Dirt. Dirt is poison to babies. Flies and other insects carry dirt. Carpets, curtains and wallpapers harbour insects, germs of infectious disease, and other dirt.

Keep Warm. To allow a child to be cold is as bad as to deprive it of food. Use suitable flannel clothing; do not live in stuffy warm rooms; have arms and legs covered as well as body, but clothes loose so that infant may get exercise by free movements. Keep a Guard in front of fire.

Avoid Cold. By proper feeding and clothing. Cold air is bracing and healthy, and as wholesome by night as by day—keep windows always open when at home, and take baby out of doors as much as possible in fine weather.

Be Regular. Teach regular habits from the first day—it will save you a lot of trouble. Let baby sleep as much as it will, but wake regularly to feed. Let it have a little bed of its own. Baby wants all the air it can get and sleeping with its mother is unhealthy and dangerous.

Avoid Bad Habits. Don't let baby have a Dummy Teat to suck or a tube bottle—they cannot be kept clean easily—and if dirty are poisonous.

Consult Doctor. If eyes are sore, to prevent blindness. If fretful, for there must be some cause. If baby has diarrhœa, for there is danger.

Avoid Quacks. Their "Infants Foods," Soothing Syrups, and their Teething Powders. They kill more than they cure.

HOW INFANTS SHOULD BE FED.

Infants should whenever it is at all possible be fed at the breast up to nine months old, but not beyond that age, except in summer. An infant should not be weaned in June, July, or August. Breast milk is always much more wholesome than cow's milk. Four out of ten hand-fed infants soon die. Bread, Biscuits and Infants Food are dangerous if given before the Infant is seven months old.

Infants should have the breast regularly at definite hours, not oftener than every two hours during the day, and every four hours during the night. At the end of three months they should be suckled at longer intervals. When they are fretful or suffer from indigestion, it may be that they are overfed, and diminishing their diet will then put them right.

The mother should, in order to supply wholesome milk to her child, partake only of plain and wholesome food, drinking plenty of water, but no intoxicating drinks. If she suffer from sore nipples, they should be washed with warm water after the child has fed, and some glycerine should then be applied.

When from want of milk, or from an absolute necessity of going to work, a mother cannot suckle her infant entirely, the next best thing is to supplement breast milk by alternate meals of modified milk prepared as directed in Leaflet No. 4, using a boat bottle without a tube.

Health Office,
Guildhall, Bath.

W. H. SYMONS, D.P.H.,
Medical Officer of Health.

REPORT OF HEALTH VISITOR FOR THE YEAR 1909.

Total number of Births, 862. Attended by Midwives, 557.
Visited by Health Visitor, 525. Total number of visits, 3,363.
Average number of visits paid to each infant, 6.

Condition of Infants. Healthy and clean, 388.
Fairly healthy or doubtful, 123. Dirty, 14.
Infants with inflammation of eyes after the 10th day, 23.

Condition of Rooms and Environment. Good and clean, 290.
Damp but clean, 52. Fairly clean, 30. Dirty, 22.
Reported to Sanitary Inspector as Insanitary, 18.
No opportunity of seeing rooms, 113.

Locality of Births. Central Districts:—Avon Street and Milk Street, 133.
St. Michael's. District; Julian Road and Snow Hill, 81. Larkhall and Beacon Hill, 88.
Bathwick, 16. Dolemeads, 48. Widcombe, East, 33.
Holloway, Calton Road & Odd Down, 70. Lower Bristol Rd., 46.
Mothers and Infants who have left Bath or District, 38.
Visits discontinued by request, 22.
Visits by special request, not Midwives cases, 10.
Illegitimate births under observation, 22.

Mothers having Occupation other than Domestic Work. Charing, 28.
Laundry workers, 10. Wood choppers, 4. Flower sellers, 2.
Factory workers, 2. Helping in small shops, Public Houses, 16.

Methods of Feeding at Various Ages: 617 infants.

	Age. Under Four Months		Four to Eight Months		Eight to Twelve Months	
	Number	Per cent.	Number	Per cent.	Number	Per cent.
Breast Fed entirely	417	91	330	55	144	28
Breast & Cows	3	1				
Cows entirely	32	7	124	21		
Condensed milk and Infants Food	5	1				
Breast, Biscuit, Cows & Bread and Milk			129	22	192	37
Cows, Infant Foods & Condensed Milk			12	2	177	34

In use: Boat Bottles, 112; Tube Bottles, 60.
Spoon or Cup, 70,=242.

Where artificial feeding was resorted to, the old tube bottle was in use in 25 per cent. of the cases, notwithstanding continual protests by the Health Visitor.

THE THIRD ANNUAL REPORT OF THE BATH BRANCH OF THE WAKEFIELD BABIES' WELCOME SOCIETY,

FOR THE YEAR ENDING, FEBRUARY 11th, 1910.

During the year 32 members joined the Society saving amounts varying from 1/- to 13/7, and in most cases availing themselves of the loan of the things provided by the Society. This was an increase of three members on the previous year. It is hoped that in the future the Society will be better known. The Committee commend it to the notice of all district visitors and to those who are interested in promoting thrift amongst our less well to do neighbours.

Help may be given in the following way :—

(1) By undertaking to collect from one or more members.
(2) By joining the Needlework Society.
(3) By giving a subscription or donation.

BALANCE SHEET.

Receipts.	£	s.	d.	*Expenditure.*	£	s.	d.
Mrs. Sheldon, Sub. ..	0	10	0	Deficit, 1908 ..	0	7	5
Miss C. Pedder ,, ..	0	2	6	Printing	0	7	0
Mrs. Carr ,, ..	0	5	0	Balance	1	2	7
Mrs. Machell ,, ..	0	2	6				
Mrs. Shickle ,, ..	0	5	0				
Needlework Society, Sub	0	12	0				
	£1	17	0		£1	17	0

(Signed), MABEL L. M. SHICKLE,
Hon. Sec., Babies' Welcome Society.

BABY VISITING ASSOCIATION.

REPORT OF WORK, TO DECEMBER 31st, 1909.

22 Young children have been visited (9 boys and 13 girls) ages from 1 to 2 years.

29 Visits have been paid (22 first visits, 5 second, and 2 third).

Most of the visiting was undertaken in December.

Six of the children were reported in excellent health and condition.

Seven of the children were reported in fairly good health and condition.

One of the children was reported poorly nourished.

One of the children was reported as suffering from Whooping Cough.

Three of the children have died from Whooping Cough (2 aged 18 months and 1 aged 11 months).

One child has gone away.

Their environment was in five cases reported excellent, in 8 fairly good, and in 5 dirty.

(Signed), MARGARET JOHNSTON.

INFANTILE MORTALITY.

The number of infants who died during the year was 71; 46 males and 25 females, giving an infantile mortality of 82 per 1,000 Births. The number of legitimate births was 807, and of those infants 65 died, the infantile mortality being 81. There were 55 illegitimate births, as compared with 63 of the previous year, both numbers being considerably above our average of the previous six years, which was 41, but the infantile mortality among illegitimate children has been considerably reduced. Thus the average of 5 years, 1901-5 was 283, for 1906 it was no less than 325 per 1,000 illegitimate births or nearly one third of all such births, but in 1907 this mortality was reduced to 154, in 1908 to 143, and in 1909 to 110 per 1,000 illegitimate births. This improvement cannot be entirely ascribed to the weather, and is markedly coincident with the appointment of a Health Visitor in May, 1907. There was not so much room for improvement in the infantile mortality rate among infants of legitimate birth, but some improvement is obvious. Thus the average of 1901-5 was 96, in 1906 the infantile mortality among legitimate infants was 109; in 1907, 86; in 1908, 75: and in 1909, 81 per 1,000 legitimate births. The infantile mortality in the City of Bath for 1909 was considerably less than in the surrounding Rural District. The average for the preceding five years in the Rural District being 90 per 1,000 births.

This improvement is not confined to Bath, but is shared by the general returns for England and Wales. The Notification of Births Act has been adopted in 119 Urban Districts, at the end of November, 1908, and in about 150 districts Health Visitors have been appointed.

Infantile Mortality in various Districts:—

	1904	1905	1906	1907	1908	1909
England and Wales	146	128	133	118	121	109
76 Great Towns	160	140	145	127	128	118
Bath City ...	111	89	114	88	79	82
Bath Rural District	93	87	105	109	59	97
142 other Large Towns	154	132	136	122	124	111
Rural England	126	113	116	106	110	98

In Bath there were 35 Infantile Deaths during the first half of the year, and 36 during the second half. The saving of life was in a great measure due to the prevalence of wet days, fatal to fly life.

During the first month of life 31 deaths occurred, and of these all but three were probably due to prenatal causes. The majority of the remaining forty deaths may be looked upon as preventable.

INFANTILE MORTALITY DURING THE YEAR 1909.

Deaths from stated Causes in Weeks and Months under One Year of Age.

	Cause of Death.	Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under 1 Year.	
All Causes.	Certified, Male ...	15	4	3	2	24	1	5	1	1	1	2	4	...	4	1	2	46	
	Certified, Female ...	2	3	2	...	7	4	3	3	2	1	2	1	...	1	1	...	25	
	Uncertified None	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
																		M	F
i. Common Infectious Diseases.	Small-pox	...		...	...	...	...	...	...	...	...	...	...	...	...	...	...		
	Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	...	...	...	...	...	...	.	...	...	...	...	...	...	...	...	...	...	...
	Scarlet Fever	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria including Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Whooping Cough ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
i. Diarrhœal Diseases. (See Notes Table IV)	Diarrhœa, all forms ...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Enteritis, Muco-enteritis Gastro-enteritis	...	...	...	...	...	...	1	...	2	1	1	2	..	2	...	1	8	2
	Gastritis, Gastro-intestinal Catarrh	...	...	1	...	1	1	..	...	...	...	...	...	...	...	...	...	...	2
iii. Wasting Diseases.	Premature Birth ...	8	3	1	...	12	3	1	...	...	...	...	...	...	...	...	...	10	6
	Congenital Defects ..	3	2	1	...	6	...	...	..	...	...	1	...	...	...	...	...	5	2
	Injury at Birth	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk, Starvation	...	...	...	...	...	...	...	...	...	...	...	.	...	...	...	...	...	...
	Atrophy, Debility, Marasmus	5	1	.	..	6	1	1	...	...	...	...	...	..	1	1	...	7	3
iv. Tuberculous Diseases.	Tuberculous Meningitis ...	...	...	..	...	...	.	...	...	.	...	1	1	...	...	...	...	1	1
	Tuberculous Peritonitis Tabes Mesenterica	...	...	...	...	...	...	...	1	...	...	...	1	...	1	...	...	3	...
	Other Tuberculous Diseases	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	2
v, Other Diseases.	Erysipelas	...	...	...	...	...	..	1	...	...	...	...	...	...	...	1	...	1	1
	Syphilis...		...	...	1	1	...	...	...	1	1	...	...	..	1	...	...	2	2
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	1	...	...	.	...	...	1	...
	Convulsions	1	...	1	...	2	...	1	1	...	...	...	...		...	...	...	3	1
	Bronchitis	...	...	1	...	1	.	1	...	...	...	..	...	...	...	...	...	1	1
	Laryngitis	.	...	...	...	...	...	...	...	...	...	...	...	..	...	..	...	...	...
	Pneumonia	.	1	..	...	1	...	1	...	...	...	...	..	...	...	...	1	3	...
	Suffocation, overlying ...	...	...	...	...	...	...	..	...	..	...	...	...	...	...	...	...	...	...
	Other causes	...	...	...	1	1	.	...	...	...	...	...	...	...	...	...	...	1	...
	Accidental Death (Scalds)	...	.	...	...	...		..	1	...	...	...	...	...	...	...	...	...	1
		17	7	5	2	31	5	8	4	3	2	4	5	...	5	2	2	71	

City of Bath. Population, Estimated to middle of 1909, 50,000.

Births { legitimate 807, illegitimate 55

Deaths { legitimate infants 65 Infantile mortality 81

illegitimate infants 6 Infantile mortality 109

Deaths from all Causes at all Ages :—Residents, 699; Non-Residents, 107.

WINSLEY SANATORIUM.

Since the Sanatorium was opened in December, 1904, over a thousand patients have been admitted, the exact figure to the end of 1909 being 1043. During these five years thirty-eight patients have occupied the beds maintained by the City of Bath.

The following is the classification of cases adopted by the Medical Board of the Sanatorium.

Class I.—"Good Cases." Full working capacity may be restored without much fear of relapse if reasonable care is taken.

Class II.—"Hopeful Cases." A good chance of regaining working capacity exists, although not, perhaps, in four months treatment.

Class III.—"Some Benefit may be Expected." Cases of long standing and with much lung affected, improvement more or less lasting according to the life led. Will only be fit for very easy light work under favourable conditions.

Class IV.—"Unsuitable Cases."

According to the above method the Bath cases have been classified as follows:

Year of Admission.	Class I.	Class II.	Class III.	Class IV.	Total..
1905	..	1	6	..	7
1906	2	1	4	..	7
1907	..	5	2	..	7
1908	2	3	3	1	9
1909	2	2	4	..	8
	6	12	19	1	38

With the exception of the one Class IV. case, who was only admitted for a month, and died a few weeks after leaving, all the above patients made some improvement in health. But the immediate results of treatment are of very little real value, as practically all patients admitted to a Sanatorium derive benefit from the fresh air, good food, and regular hours and habits. Even advanced cases find their cough diminished, their appetite and digestion improved, and they sleep much better, night sweats being almost unknown. The duration of the improvement made depends, however, on the extent and stage of the disease. Advanced cases may be improved, and may be restored to work for a time, but sooner or later they are sure to relapse, unless they can live in exceptionally favourable circumstances.

Early cases have every prospect of being restored to full working capacity, and of their improvement being permanent, provided they have sufficient patience and perseverance to conscientiously carry out instructions given them during their stay at the Sanatorium, and to lead healthy and sober lives after.

AFTER HISTORY OF BATH PATIENTS.

Table I. records the after history of patients, as suggested by Dr. Timbrell Bulstrode in his "Report on Sanatoria for Consumption."

Table II. deals with the same patients in more detail, and shows that the early cases are more frequently restored to full working capacity than the advanced ones.

TABLE I.

Year of Discharge.	Number of Patients.	Number of Patients (a) alive (b) at full work, in January in each of the undermentioned years.					
		1908		1909		1910	
		(a)	(b)	(a)	(b)	(a)	(b)
1905	6	2	1	2	1	2	2
1906	6	4	4	4	3	4	3
1907	7	6	4	6	4	4	3
1908	8	..	..	6	2	4	2

TABLE II.

Year of Discharge.	No. of Cases.	Class	January, 1908.				January, 1909.				January, 1910.			
			Alive.	Full work.	Some Work.	No Work.	Alive.	Full Work.	Some Work.	No Work.	Alive.	Full Work.	Some Work.	No Work.
1905	6	I. ...	...	...	...	...	...	...	...	...	...	...	...	...
		II. ...	...	...	...	...	...	...	...	...	...	...	...	...
		III. 6	2	1	1	...	2	1	1	...	2	2	...	...
1906	6	I. ...	...	...	...	...	...	...	...	...	...	...	...	...
		II. 2	2	2	...	...	2	2	...	...	2	2	...	...
		III. 4	2	2	...	...	2	1	1	...	2	1	1	...
1907	7	I. 2	2	2	...	...	2	2	...	...	2	2	...	...
		II. 4	4	2	2	...	4	2	1	1	2	1	1	...
		III. 1	...	...	...	...	...	...	...	...	...	...	...	...
1908	8	I. 1	...	...	...	...	1	1	...	...	1	1	...	...
		II. 3	...	...	...	...	3	1	2	...	2	1	1	...
		III. 4	...	...	...	...	2	...	1	1	1	...	1	...

LEONARD CROSSLEY, M.D.

WEEKLY NOTIFICATION OF INEECTIOUS DISEASES FOR THE YEAR 1909.

WEEK.		Scarlet Fever	Diphtheria.	Typhoid Fever	Chicken Pox.	Puerperal Fever.	Erisipelas.	Total.	Phthisis.	
No.	Date of Ending								Voluntary.	Poor Law.
1	January 9	...	...	...	...	...	...	...	...	...
2	16	1	3	...	2	...	...	6	...	19
3	23	...	1	...	5	...	1	7	...	...
4	30	...	2	...	1	...	3	6	...	...
5	February 6	...	2	...	...	...	2	4	...	...
6	13	...	7	...	1	...	2	10	...	...
7	20	...	...	1*	1	...	3	5	1	1
8	27	3	1	...	2	...	2	8	...	...
9	March 6	2	2	...	1	...	1	6	2	1
10	13	...	3	...	2	...	1	6	1	...
11	20	...	...	...	1	1	...	2	...	1
12	27	2	3	...	4	...	1	10	...	1
13	April 3	3	2	...	4	...	2	11	...	1
14	10	2	2	...	2	1	...	7	...	...
15	17	1	2	...	4	...	...	7	1	2
16	24	...	1	...	2	...	3	6	1	1
17	May 1	...	1	...	...	...	1	2	2	1
18	8	2	...	...	5	...	...	7	...	...
19	15	...	1	...	1	...	...	2	1	2
20	22	...	3	...	...	1	...	4	...	..
21	29	...	1	1	3	...	...	5	1	2
22	June 5	1	1	...	1	...	2	5	1	1
23	12	1	...	...	...	...	1	2	...	...
24	19	...	1	...	1	...	1	3	...	1
25	26	...	2	...	...	...	1	3	1	1
26	July 3	1	...	...	8	...	...	9	1	...
27	10	...	1	...	...	...	...	1	...	...
28	17	1	1	...	2	...	..	4	...	...
29	24	...	...	...	...	...	...	...	...	...
30	31	1	...	...	...	...	...	1	1	...
31	August 7	1	...	...	...	...	3	4	1	2
32	14	...	...	...	...	...	...	...	...	...
33	21	1	3	...	2	...	...	6	...	...
34	28	...	...	...	...	...	1	1	...	1
35	September 4	...	...	..	1	...	...	1	...	3
36	11	...	...	1	...	...	...	1	1.	...
37	18	2	...	..	2	...	...	4	...	...
38	25	...	...	...	1	...	1	2	...	1
39	October 2	1	...	...	1	...	2	4	...	...
40	9	1	1	1	2	...	2§	7	...	...
41	16	...	2	...	1	...	...	3	...	...
42	23	...	1	...	4	...	...	5	...	...
43	30	2	...	...	3	...	1	6	...	1
44	November 6	...	1	...	1	...	1	3	...	...
45	13	2	1	...	3	...	2	8	...	...
46	20	...	1	..	2	...	1	4	1	1
47	27	3	...	...	...	...	...	3	...	1
48	December 4	2	1	...	1	...	..	4	1	1
49	11	1	1	...	9	...	...	11	1	1
50	18	...	2	...	...	...	...	2	4	...
51	25	...	1	...	2	...	...	3	1	...
52	January 1	1	2	...	6	...	...	9	3	1
	Totals	38	60	4	94	3	14	240	27	48

*7th Week. One case of Typhoid brought to R.U.H. for treatment from Rush Hill, Bath Rural District.

§40th Week. One case of Erysipelas brought to R.U.H. for treatment from Corston, Keynsham Rural District.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1909.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.														TOTAL CASES NOTIFIED IN EACH LOCALITY.								NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.													
	At all Ages.		At Ages—Years.												BATH.		WALCOT H.		LYN. & WID. W.		BATHWICK.		BATH.		WALCOT. H.		LYN. & WID. W.		BATHWICK.		BATH RURAL.		OUTSIDE DISTRICTS.			
			Under 1.		1 to 5		5 to 15		15 to 25.		25 to 65.		65 and over.																							
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Diphtheria or Membranous croup	28	32			6	9	18	10	2	10	2	3			28	32	16	21	9	7	3	4	19	25	11	15	6	6	2	4	5	11				
Erysipelas	22	19	1	1				1	1	1	14	10	6	6	22	19	10	10	11	7	1	2														
Scarlet fever	21	17			6	4	12	8	2	2	1	3			21	17	10	7	10	9	1	1	14	11	10	6	3	4	1	1	16	14				
Enteric fever ...	3	1							2		1	1			3	1	1	1	2																	
Puerperal fever ...		3								1		2				3		2		1																
Chicken Pox	54	40	6	5	12	10	26	23	10	1		1			54	40	30	23	14	13	10	4														
Measles																								1		1						1				
Phthisis Residents Poor Law.	25	15					3	3	2	3	20	9			25	15	14	10	9	4	2	1														
Phthisis Residents Vol.	11	16					2	3	2	5	6	8	1		11	16	6	7	3	9	2															
Phthisis Non-Residents Poor Law.	6	2			1			1	1		4	1			5	2			6	2																
Totals	170	145	7	6	25	23	61	49	22	23	48	38	7	6	170	145	87	81	64	52	19	12	33	37	21	22	9	10	3	5	21	26				

VITAL STATISTICS.

MARRIAGES REGISTERED IN THE CITY OF BATH, 1906, 1907, 1908, 1909.

Quinquennial means 1891-5, 1896-1900, 1901-5.

Years.	Winter.	Spring.	Summer.	Autumn.	Year.	Rate per 1,000.
1891-1895	88	122	131	126	466	17·9
1896-1900	78	124	129	121	451	18·0
1901-1905	78	116	123	123	435	17·4
1906	74	119	124	106	423	16·9
1907	81	120	129	110	440	17·6
1908	102	104	109	118	433	17 4
1909	75	122	141	121	459	18·4

QUARTERLY RETURNS OF BIRTHS.

Births Registered.	Winter.	Spring.	Summer.	Autumn.	Year, 1909.
Legitimate ..	166	222	221	198	807
Illegitimate ..	17	12	13	13	55
Total Births ..	183	234	234	211	862
Rate per 1,000	14·6	18·7	18·7	16·9	17·24
English Rate ,,	26·0	26·6	25·4	24·3	25·6

Births attended by Midwives.

Age of Mother.	1907.		1908.		1909.		
	Number & Sex.		Number & Sex.		Number & Sex.		Perc. of Birth.
	Male.	Female	Male.	Female	Male.	Female	
17 to 20 years ..	6	8	4	4	5	1	1
20 ,, 25 ,, ..	63	42	66	65	64	45	19
25 ,, 30 ,, ..	98	73	111	86	90	78	30
30 ,, 35 ,, ..	80	77	77	52	64	80	26
35 ,, 40 ,, ..	41	48	46	46	50	47	17
40 ,, 45 ,, ..	18	14	25	19	15	24	7
45 and upwards	4	2	2	4	1	..	..
All ages ..	310	264	331	276	289	275	100

Total Births Apl. 1st to Dec. 31st, 1905, 709; 1906, 929; 1907, 888; 1908, 996; 1909, 862.

Percentage attended by Midwives, Apl. 1st to Dec. 31st, 1905, 53 1906, 58; 1907, 65; 1908, 58; 1909, 62.

VACCINATION RETURNS.

	1907.			1908.			Jan. to June, 1909.		
District.	Born.	Died.	Vac.	Born.	Died.	Vac.	Born.	Died.	Vac.
Walcot	478	42	384	544	36	329	235	16	122
Lyncombe	316	26	297	389	18	277	156	12	77
Bathwick	50	5	35	46	1	28	21	3	13
Bath	844	73	716	979	55	634	412	31	212

PRIMARY VACCINATION PER 1,000 SURVIVING INFANTS.

1891-1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.
695	822	885	716	808	882	794	915	686	553

RETURN OF DWELLING HOUSES AND OTHER BUILDINGS.

PAROCHIAL POPULATION.

District.	Population 1901.		October 1st, 1909				Value Oct. 1st, 1901.
			Private Houses, Hotels & Shops		Other Buildings		
	Male	Female	Let	Void	Let	Void	£
Bathwick ...	1,384	2,900	867	82	79	18	38,307
Lyn. & Wid. ...	6,512	7,860	3,745	255	229	15	61,432
St. James' ...	1,801	2,512	609	33	133	1	25,241
St. Michael's ...	870	1,192	391	25	60	15	24,125
S. Peter & S. Paul	490	712	215	13	43	1	19,777
Walcot	9,075	14,516	4,741	368	314	38	135,926
Bath	20,132	29,692	10,568	776	858	88	304,808

BIRTHS AND DEATHS REGISTERED DURING THE YEAR.

District.	Births.				Deaths.			
	M.	F.	Persons.	Rate.	M.	F.	Persons.	Rate.
Walcot ...	246	239	485	15·5	136	225	361	15·5
Hospitals ...	—	—	—		73	49	122	
Lyn. and Wid.	159	155	314	23·2	69	77	146	18·9
Workhouse ...	11	11	22		66	62	128	
Bathwick ...	28	13	41	9·5	17	30	47	10·9
Bath	444	418	862	17·24	361	443	804	16·08

CORRECTED SUB-DISTRICT MORTALITY,

including two deaths at the Statutory Hospital.

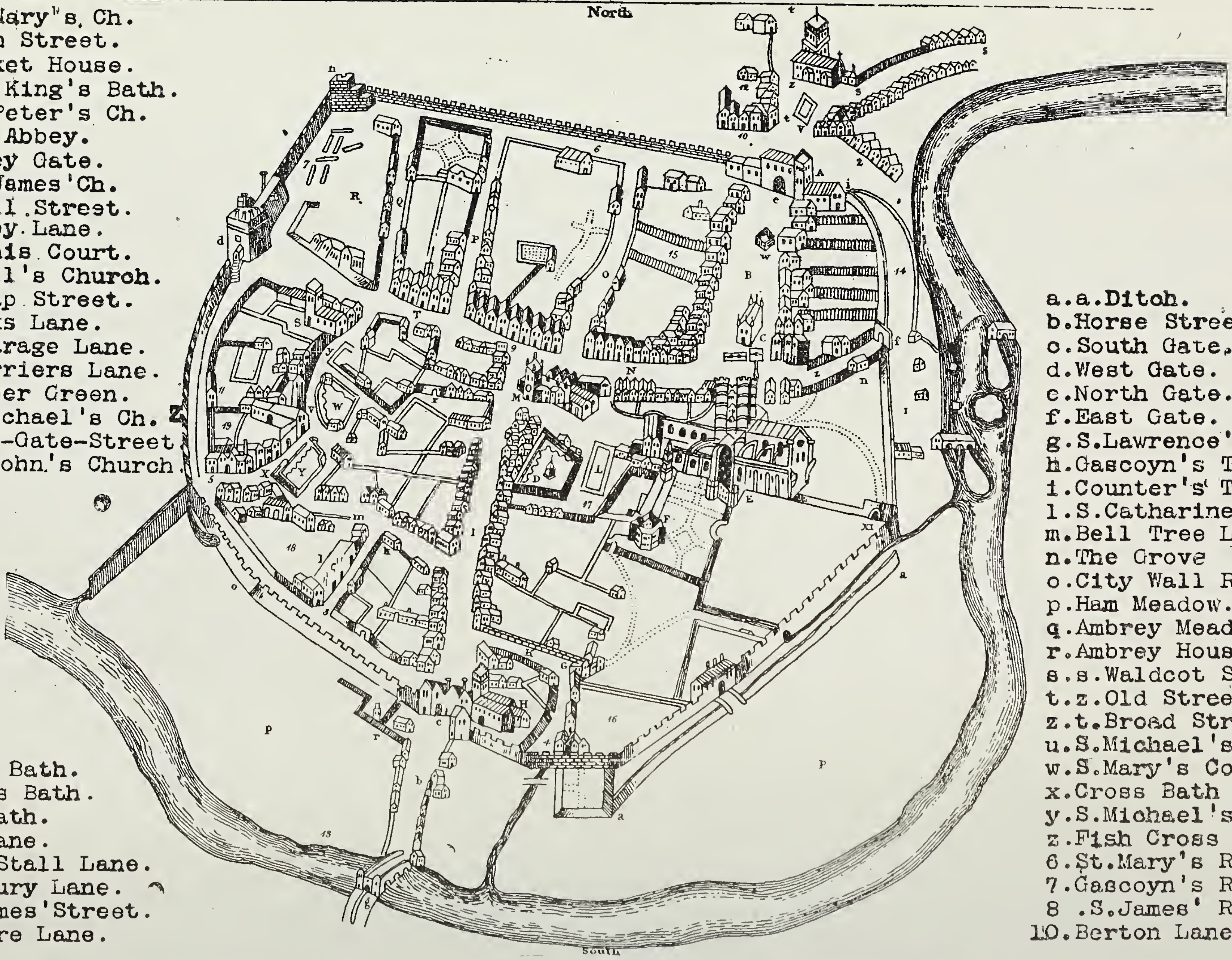
	Locality of Death.						Total Persons	Corrected Rates	
	Private House.		Hospital.		Workhouse.			Net.	Standard
	Male	Female	Male	Female	Male	Female			
Walcot ...	128	220	29	17	38	42	474	15·2	13·7
Lyn. & Wid. ...	70	72	8	6	15	7	178	12·3	11·1
Bathwick ...	15	30	1	—	—	1	47	10·9	9·8
Bath	213	322	38	23	53	50	699	13·98	12·58
Non-Municipal	9	10	35	28	13	12	107		

ANNUAL DEATH RATES PER 1,000 FROM ALL CAUSES AND FROM SEVEN ZYMOTIC DISEASES. YEAR 1909.

	All causes.		Zymotic Diseases	Small Pox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Fever	Diarrhœa Zymotic Enteritis	Deaths under 1 year per 1,000 Births
	Crude	corrected									
England and Wales ...	14·5	14·5	1·12	0·00	0·35	0·09	0·14	0·20	0·06	0·28	109
Bath	16·1	12·6	0·60	—	0·14	—	0·08	0·06	—	0·32	82
76 Great Towns ...	14·7	15·6	1·42	0·00	0·48	0·11	0·15	0·24	0·06	0·38	118
143 Smaller Towns ...	13·9	14·5	1·08	—	0·33	0·09	0·16	0·17	0·06	0·27	111
England and Wales less the 219 Towns	14·5	13·6	0·80	0·00	0·21	0·06	0·14	0·16	0·06	0·17	98

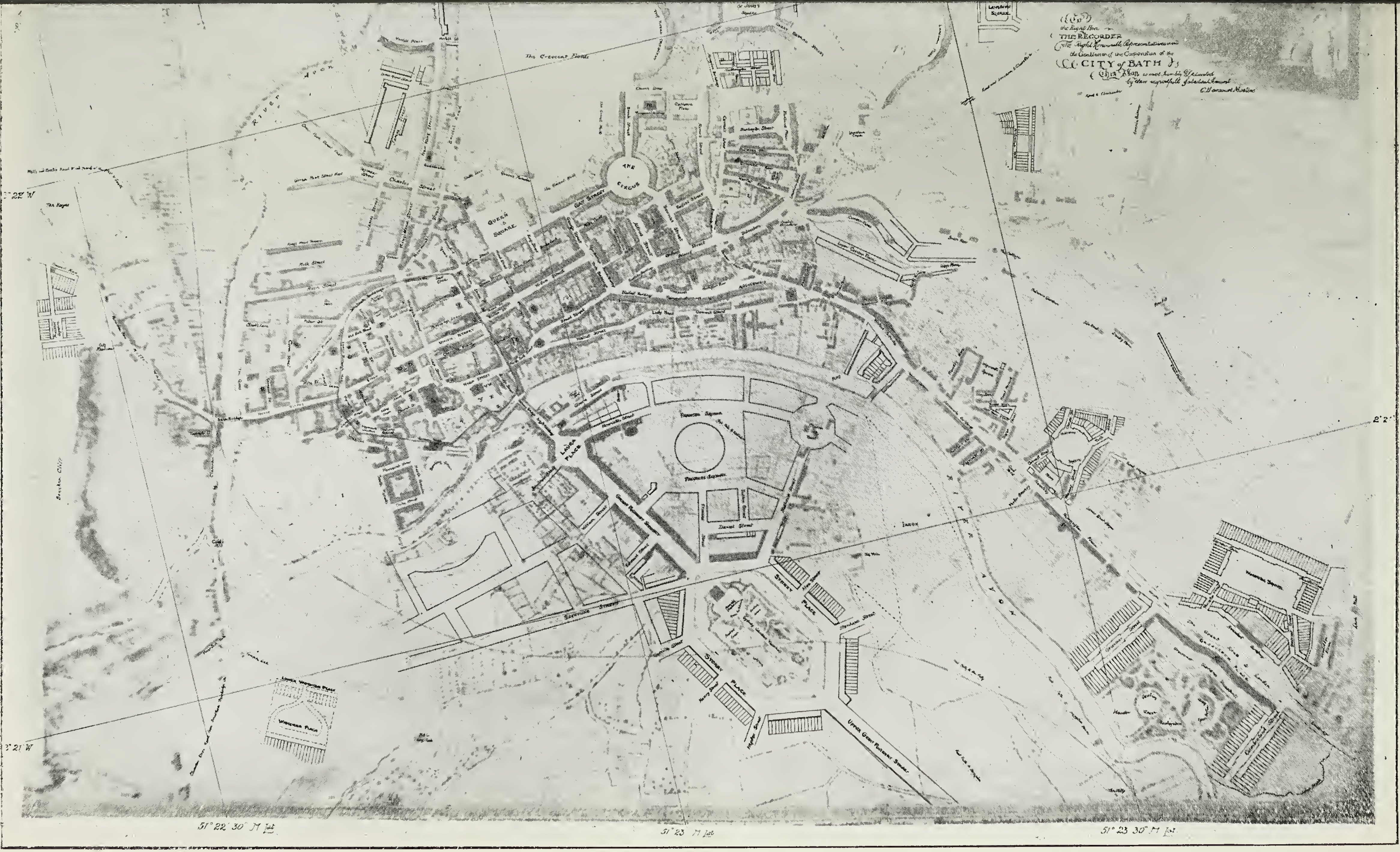
A Copy of Doctor Jones's VIEW of the CITY of BATH, as it was Published in the Year MDLXXII.

A.St.Mary's Ch.
B.High Street.
C.Market House.
D.The King's Bath.
E.St.Peter's Ch.
F.The Abbey.
G.Abbey Gate.
H.St.James'Ch.
I.Stall Street.
K.Abbey Lane.
L.Tennis Court.
M.Stall's Church.
N.Cheap Street.
O.Locks Lane.
P.Vicarage Lane.
Q.Spurriers Lane.
R.Timber Green.
S.S.Michael's Ch.
T.West-Gate-Street
V.St.John's Church.



W.Cross Bath.
X.Lepers Bath.
Y.Hot Bath.
1.Lot Lane.
2.Boat-Stall Lane.
3.Bynebury Lane.
4.St.James'Street.
5.Nowhere Lane.

a.a.Ditch.
b.Horse Street.
c.South Gate.
d.West Gate.
e.North Gate.
f.East Gate.
g.S.Lawrence's.G.
h.Gascoyn's T.
i.Counter's T.
l.S.Catharine's H.
m.Bell Tree Lane.
n.The Grove
o.City Wall Rock.
p.Ham Meadow.
q.Ambrey Meadow.
r.Ambrey House.
s.s.Waldcot Street.
t.z.Old Street.
z.t.Broad Street.
u.S.Michael's Conduit.
w.S.Mary's Conduit.
x.Cross Bath Lane.
y.S.Michael's Lane.
z.Fish Cross Lane.
6.St.Mary's Rampire
7.Gascoyn's Rampire
8 .S.James' Rampire.
10.Berton Lane.


To
the Right Hon.
THE RECORDER
The Right Honourable Representatives and
the Gentlemen of the Corporation of the
CITY of BATH
This Plan is most humbly Dedicated
by their respectfull & obedient Servant
C. Harcourt Masters
The Crescent Fields
River Avon
The Royal Crescent
The Circus
Gay Street
Queen Square
Charles Street
Laura Place
Great Pulteney Street
Sydney Place
Upper Great Pulteney Street
River Avon
Lower Widcombe Place
Widcombe Place
Beechen Cliff
The Kayes
2° 22' W
2° 21' W
2° 2'
51° 22' 30" N Lat
51° 23' N Lat
51° 23' 30" N Lat

CITY OF BATH.

Causes of, and Ages at, Death during the Year, 1909.

DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES. DEATHS IN LOCALITIES.

CAUSES.	Persons.	M.	F.	— 1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85—		WALCOT		LYN. WID.		BATHW'K		Non-Res.		Public Inst.		Average for 10 years, 1900-9.
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
2 Measles ...	7	4	3	...		2	2	2			1	...		...		...		...		...		...		...		...		...		...		...		1	1	3	2	...		...		...		14
3 Scarlet-fever ...	...	...	...	...		...		...		...		...		..		...		...		...		...		...		...		...		..		...		...		...		...		...		...		1
5 Influenza ...	12	4	8	1		...		...		...		...		2	1	...		...			1	...		...		1			2		3		1	3	7	1			1	2		...		17
6 Whooping-cough	3	..	3		1		2	...		...		. .		...		...		...		...		...		...		...		...		...		...			3	...		...		...		...		9
7 Diph. and M. Crp.	4	2	2	...		1	1		1	...		...		...		...		..		1		...		...		...		...		...		...		1	2	1		...			4	1	2	6
9 Fever Enteric ...	...	...	...	...		...		...		...		...				...		...		...		...		...		...		...		...		...		...		...		...			1	...		1
11 Diarrhœa ...	3	2	1	...			1	...		...		...		...		...		...		...		...		...		1		...		...		1		2	1	...		...		...		1		7
12 Zymotic Enter. ...	9	5	4	5	2		2	...		...		..		...		...		...				...		..		...		...		...		...		4	2	1	2	...			1	4	4	4
13 Enteritis ...	5	5	...	4		...		...		...		..		...		..		...		1		...		...		...		...		...		...		3		2		...		...		1		7
15 Erysipelas ...	4	3	1	1	1	...		...		...				...		...		1		...		...		...		...		1		...		...			1	3		...			1	1		2
16 Puerperal fever ...	3	...	3	...		...		..		...		...			1		2	...		...		...		...		..		...		...		...			2		1	...		...			1	1
16a Venereal ...	5	2	3	2	2		1	...		...		...		...		...		...		...		...		...		...		...		...		...		2	3	...		...		...		1	3	5
17 Other Septic ..	...	...	...	...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		1		...		4
17a Rheumatic ..	1	1	...	..		...		...		...		...		...		1		...		...		...		..		...		...		...		...		1		...		...		...		1		1
19 Tuber. men. ...	3	1	2	1	1		1	...		...		...		...		...		...		...		...		...		...		...		...		...		1	1	...			1	1		...		6
19a Tabes mesent ...	1	1	...	1		...		...		...		...		...		...		...		...		...		...		...		...		...		...		1		...		...		...		...		...
20 Phthisis ..	45	25	20		2	...		...		...		4	3		1	5	5	8	5	5	3	1	1	...		2		...		...		...		15	15	7	5	3		3	2	8	7	49
21 Other tuberclr. ..	9	6	3	2		...		...		...		1	1	...		1	1	2		...			1	...		...		...		...		...		4	3	2		...		1		3		8
23 Cancer	77	27	50	...		...		...		...		...		...		...		2	8	6	8	5	3	3	8	9	13	2	5		2		3	17	33	10	11		6	5	6	11	4	65
24 Premature birth ...	15	9	6	9	6	...		...		...		...		...		...		...		...		...		...		...		...		...		...		7	4	2	2	...		...		...		17
25 Developmental ...	20	13	7	12	7	1		...		...		...		...		...		...		...		...		...		...		...		...		...		4	5	8	2	1		2			2	23
26 Old age ..	63	17	46	...		...		...		...		...		...		...		...		...		...		1		3	4	1	12	4	10	8	20	11	32	6	11		3	2	2	7	10	56
27 Meningitis ...	3	2	1	...		1		1		...		...		...		...		...			1	...		...		...		...		...		...			1	2		...		1		1	1	6
28 Brain Inflam. ...	5	1	4	...		...		...		.		...		...		...		..		...		...		...		1	2		1		1	...		1	3		1	...		1	1	1	3	5
28a Apoplexy ...	45	15	30	...		...		...		...		...		...		...		1		1	6	2	2		4	4	7	3	5	2	5	2	1	8	21	6	7	1	2	1	1	1	2	37
28b Hemiplegia ...	12	7	5	...		...		...		...		...		...		...		...		...		1	1	...		2	2	3	1	1			1	4	4	3	1			1	1	5	4	14
28c Spinal	3	2	1	...		...		...		1		...		...		...		...		...		...		1		...			1	...		...		2	1	...		...		1	2	2		4

					DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.																														DEATHS IN LOCALITIES.										
	CAUSES.	Persons.	M.	F.	— 1		1—5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 35		35 to 45		45 to 55		55 to 60		60 to 65		65 to 75		75 to 80		80 to 85		85—		WALCOT		LIN. WID.		BATHW'K		Non-Res.		Public Inst.		Average for 10 years, 1900-9.
					M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
29	Heart	78	32	46	...		...		...		...		1		2		1	3	1	2	4	4	1	3	7	6	10	16	2	8	2	2	1	2	19	37	11	8	2	1	5	6	8	7	80
29a	Heart failure ...	22	9	13	1		...		...		...		...		1		...		...			1	4			3	2	3	...		1	4		2	7	7	2	4		2	1		1	1	22
29b	Vessels ...	1	1	...	...		...		...		...		...		...		...		...		..		...		...		...		...		...		1		...		...		1		...		...		4
30	Bronchitis Acute ...	23	11	12	2		4		...		...		...		...		...			1	2		...		...		3	4		3		1		3	4	7	7	3		2	1	1	2	2	28
31	,, Chronic	52	19	33	...		...		...		...		...		...		...			2	2	1	2		1	2	4	10	4	4	3	5	3	9	15	27	3	3	1	3	...		4	5	42
32	Pneumonia ...	31	14	17	..		2	1	...		...		...		1		...		2	3	1	3	1	1	2		2	6	1	2	2			1	13	11		2	1	4	4	2	4	2	37
33	,, Lobular	13	7	6	3		1	4	...		...		...		...		1		...		...		..		...			1	1		...		1	1	5	5	2	1	...			2		1	18
34	Stomach ...	11	6	5		2	...		...		...		...		...		1			1	1	1	...		...		4	1	...		...		...		5	3		1	1	1	3	1	5		9
35	Obstruction ...	10	5	5	...		...		...		...		...		...		..		1	1		1	1	1		1	2	1	...		1		...		3	3	1	2	1		3	3	2	2	8
36	Cirrhosis. Liver ...	12	9	3	...		...		...		...		...		...		1		1		3	1	1	1	1	1	2		...		...		...		7	2	1		1	1	...		3	1	14
37	Nephritis ...	26	13	13	...		...		...		...		...		...			1	1		4	2	2	1	2	2	3	5		1	1	1	...		7	6	5	6	1	1	1	2	5	2	27
38	Genital ...	1	...	1	...		...		...		...		...		...		...		...			1	...		...		...		...		...		...			1	...		...		...		...		1
39	Parturition ...	2	...	2	...		...		...		...		...		...			1		1	...		...		...		...		...		...		...			2	...		...		...		...		2
40a	Mechanical ...	7	5	2	...		1		...		...		...		...		...		...		2		...		2		...		...			1		1	4	2	1		...		4		3		11
40b	Burns, Scalds ...	4	...	4		1		1		1		1	...		...		...		...		...		...		...		...		...		...		...			3		1	...		2			3	2
40c	Poisons ...	...	...	...	...		...		...		...		...		...		...		...		...		...		...		...		...		...		..		...		...		...		...		...		1
40d	Drowning ...	1	...	1	...			1	...		...		...		...		...		...		...		...		...		...		...		...		...			1	...		...		...		...		2
40e	Suffocation ...	...	...	...	...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		3
41	Suicide ...	4	2	2	...		...		...		...		...		...		...		...		1	2	1		...		...		...		...		..		2	1		1	...		1	1	...		4
42	Ill defined ...	...	...	...	...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		...		1
43	All other causes ...	44	17	27	1	1	1		...			1	1		...		1			1	1	4	1	5	2	3	4	7	1	5	3		1		12	16	3	8	2	3	10	10	5	4	69
	Total ...	699	304	395	45	26	14	17	3	2	1	3	7	4	6	3	12	13	20	25	35	40	23	20	22	30	59	82	19	50	20	35	18	45	...		...		...		...		...		754
	Walcot	474	195	279	26	20	5	13		2	1	1	6	3	4	3	7	10	12	20	29	23	15	13	9	18	39	61	15	34	12	27	15	31	195	279	...		...		...		...		508
	Lyn. Wid.	178	93	85	18	5	9	3	3			2	1	1	1		4	3	7	4	4	15	7	6	11	12	16	10	4	9	6	6	2	9	...		93	85	...		...		...		189
	Bathwick	47	16	31	1	1		1	...		...		...		1		1		1	1	2	2	1	1	2		4	11		7	2	2	1	5	...		...		16	31	...		...		57
	Non-resident ...	107	57	50	3	2	4	2	4	3	1	5	2	3	2	5	3	7	6	2	7	2	6	1	2	4	14	9		2	2	1	1	2	...		...		...		57	50	...		87
	Public Inst. Res. ...	164	91	73	6	7	2	5	1	2	1	1	2		1	1	6	4	9	5	16	6	8	3	6	4	19	18	8	5	3	5	3	7	...		...		...		...		91	73	152
	Including two deaths at the Statutory Hospital from Diphtheria. (Two Females age 3 and 5).																																												
	Average for the 10 years, 1900-9.	754	346	408	95		45		12		6		9		13		35		47		71		45		55		143		67		62		49		508		189		57		87		152		

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1909 AND PREVIOUS YEARS.

COUNTY BOROUGH OF BATH.

NAMES OF LOCALITIES.	BATH. Population 50,000.							WALCOT. Population 31,200.							LYN-WIDCOMBE. Population 14,500.							BATHWICK. Population 4,300.						
YEAR.	Births registered.		Deaths at all Ages.		Deaths under 1 year.		I.M. per 1000 births.	Births registered.		Deaths at all ages.		Deaths under 1 year.		I.M. per 1000 births.	Births registered.		Deaths at all Ages.		Deaths under 1 year.		I.M. per 1000 births.	Births registered.		Deaths at all Ages.		Deaths under 1 year.		I.M. per 1000 births.
	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	
Average 1891 to 1900.	547	513	432	503	136		128	339	312	287	326				181	173	123	133				27	28	23	39			
1899 ...	514	506	433	528	73	61	131	307	307	283	332				186	176	129	165				21	23	21	31			
1900 ...	496	466	382	468	66	55	126	299	267	256	317	38	31	122	171	176	110	115	24	20	127	26	23	16	36	2	2	82
1901 ...	508	467	415	461	53	48	104	288	258	254	266	35	30	119	198	177	143	156	16	14	80	22	32	18	39	2	4	111
1902 ..	489	499	389	433	60	45	106	280	300	254	303	36	30	114	179	180	111	93	20	13	92	30	19	24	37	4	2	123
1903 ...	527	500	302	366	56	31	89	296	304	204	252	38	15	88	199	167	74	78	16	14	82	32	29	24	36	2	2	66
1904 ...	525	509	328	410	63	52	117	313	292	210	284	38	29	111	183	195	87	93	21	22	114	29	22	31	33	4	1	98
1905 ...	479	506	339	385	53	35	97	267	295	245	252	39	25	114	188	189	74	99	13	9	58	24	22	20	34	1	1	43
1906 ...	451	478	341	407	63	43	114	266	265	226	278	41	21	117	161	190	89	97	18	21	111	24	23	26	32	4	1	107
1907 ...	450	438	332	384	46	33	88	274	244	211	268	29	21	97	150	171	88	84	12	11	71	26	23	22	33	5	1	123
1908 ...	535	461	373	396	54	25	79	294	261	245	245	36	13	88	215	177	105	116	15	11	66	26	23	23	35	3	1	82
Average for years 1899 to 1908.	497	483	363	424	59	43	105	288	279	239	280	*37	*24	*108	183	180	101	110	*17	*15	*89	26	24	23	35	*3	*2	*93
1909	444	418	304	395	45	26	82	246	239	195	279	26	20	95	170	166	93	85	18	5	68	28	13	16	31	1	1	49

* Average for 1900 to 1908.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1909 AND PREVIOUS YEARS.

Year.	Population estimated to Middle of each Year.	Births.		Births per 1000 Married Women.	Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-Residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
					Under 1 Year of Age.		At all Ages.						
		Number.	Rate.*		Number.	Rate per 1,000 Births Registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4		5	6	7	8	9	10	11	12	13
Aver. 1891-1900.	50,780	1060	20·81	224	136	128	944	18·58	193	72‖	5‖	839‖	16·65‖
1899	50,200	1020	20·32	204	134	131	961	19·14	229	81	3	882	17·57
1900	50,000	962	19.14	192	121	126	933	18·66	193	89	6	850	17·00
1901	49,000	973	19·58	199	101	104	876	17·59	177	73	7	803	16·12
1902	49,800	988	19·40	202	105	106	911	17·93	223	70	2	822	16·48
1903	49,800	1027	20·62	208	92	89	751	15·08	135	57	2	668	13·41
1904	49,800	1034	20·76	209	121	117	826	16·58	212	75	8	738	14·82
1905	50,000	985	19·70	200	95	97	808	16·16	194	71	4	724	14·48
1906	50,000	929	18·58	188	110	114	824	16·60	169	71	4	748	14·96
1907	50,000	888	17·76	180	81	88	785	15·70	163	60	1	716	14·32
1908	50,000	996	19·53	207	86	79	857	16·81	164	93	5	769	15·09
Aver. 1899-1908.	49,860	980	19·54	199	105	105	853	17·02	186	74	4	772	15·42
1909	50,000	862	17·24	171	76	Res 82 Tot.88	804	16·12	252	88* 19§	2	699	13·98

‖ Average for the five years, 1896 to 1900 only.
* Eighty-eight deaths in Public Institutions.
§ Nineteen deaths in Nursing Homes, Private Houses, &c.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying there; by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died elsewhere.

The "Public institutions" to be taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums.

Area of district in acres (exclusive of area covered by water) 3,338.

Total population at all ages	49,839	At Census of 1901.
Number of inhabited houses	9,317	
Average number of persons per house ...	5·3	

PRINCIPAL CAUSES OF DEATH FOR EACH QUARTER OF THE YEAR 1909, COMPARED WITH THE MEAN OF CORRESPONDING QUARTERS OF PREVIOUS 5 YEARS.

	Winter.		Spring.		Summer.		Autumn.		Year	Mean
	1909	5 Years	1909	5 Years	1909	5 Years	1909	5 Years	1909	5 Years
Deaths from 7 Principal Zymotic	3	13	9	13	10	11	8	8	30	51
Cancer & Sarcoma	22	18	24	13	13	16	18	16	77	63
Tubercular Phthsis	13	16	7	11	12	11	13	11	45	49
Other Tubercular	3	3	1	2	3	2	2	2	9	7
Apoplexy and Hemiplegia	18	12	11	13	12	7	16	14	57	46
Heart Disease ..	25	29	26	22	25	16	25	24	101	91
Bronchitis ..	42	31	11	11	4	5	18	20	75	67
Pneumonia ..	13	20	16	15	4	7	11	14	44	58
Influenza ..	5	9	5	3	1	..	1	1	12	16

DEATHS FROM ALL CAUSES AT VARIOUS AGES EACH QUARTER, AND 5 YEARS MEAN.

	Winter.		Spring		Summer		Autumn.		Year	Mean
	1909	5 Years	1909	5 Years	1909	5 Years	1909	5 Years	1909	5 Years
All ages ..	221	233	173	178	139	142	166	189	699	739
Under 1 year	23	27	12	21	19	24	17	22	71	94
1-5 ..	5	19	13	15	3	7	10	9	31	50
5-15 ..	2	4	2	5	2	6	3	3	9	17
15-25 ..	4	7	7	4	6	4	3	6	20	19
25-35 ..	5	12	5	7	7	7	8	9	25	35
35-60 ..	49	41	41	36	36	34	37	47	163	157
60-80 ..	86	82	63	63	49	47	64	63	262	254
80 & over ..	47	41	30	27	17	15	24	30	118	113

INFANTILE MORTALITY.

1909	Mean	1908	1907	1006	1905	1904	1903	1902	1901	1900	1899
82	105	79	88	114	97	117	89	106	104	126	131

DEATHS FROM PREVENTABLE DISEASES.

	1909	Mean	1908	1907	1906	1905	1904	1903	1902	1901	1900	1899
Diarrhœa ..	16	15	10	14	13	4	15	7	14	17	21	37
Measles ..	7	14	33	2	17	33	4	1	42	..	4	7
Whooping Cough	3	9	2	14	14	3	15	4	11	10	9	3
Scarlet Fever ..	..	1	..	1	3	..	..	2	..	3	3	..
Diphtheria ..	4	7	2	4	5	13	10	3	6	7	9	8
Typhoid ..	..	2	..	2	1	1	1	2	1	2	4	6
Small Pox ..	..	..	..	..	..	..	..	..	1	..	..	..
Phthisis ..	45	51	57	46	57	41	45	42	38	64	54	69
Other Tubercular	9	16	21	8	10	11	16	11	17	9	23	33
Influenza ..	12	22	18	19	23	12	10	14	22	13	28	58
Puerperal Fever	3	1	..	..	1	4	1	..	..	..	2	1
Erysipelas ..	4	2	4	2	..	1	..	1	1	4	5	5

Inquests, 1909.

M.	F.	Persons.
33	24	57

Uncertified Deaths.

Nil.

CREMATION—FIRE BURIAL.

As will be seen from an article published elsewhere, the disposal of the bodies of the dead by burning continues to make progress. It might be wished, in the interest of the public health, that the progress were a little more rapid, but sanitarians may find room for satisfaction in the fact that it is steady. In Great Britian there were sixty more cremations in 1909 than in the previous year. Recently a society has been founded in Edinburgh to further the movement. In several of our colonies cremation has been introduced. In the United States, as to which we have no definite figures later than 1905, it is said to be making headway. In South America crematories have been established at Buenos Aires and Montevideo. In Germany, too, a large increase is reported, while in Belgium, where cremation is not yet recognized by law, a society has been formed to obtain its legalization, and to impress its advantages on the people. These signs, though still like the cloud no bigger than a man's hand, indicate a growing recognition of the advantages of cremation over earth burial. We need not here enlarge on these advantages from the sanitary point of view; our readers are already familiar with them, and we think we may say that they are generally admitted. Nor need we dwell on the economic argument, the ever-increasing space required for cemeteries, and the costliness of burial as compared with cremation. Certain objections—prejudices we should call them—yet remain. The chief of these are the religious, the sentimental, and the juridical.

In an official sense the religious objection is now, we believe, confined to Roman Catholics and Jews, In the case of the former the objection is, as far as we understand the matter, disciplinary rather than doctrinal.

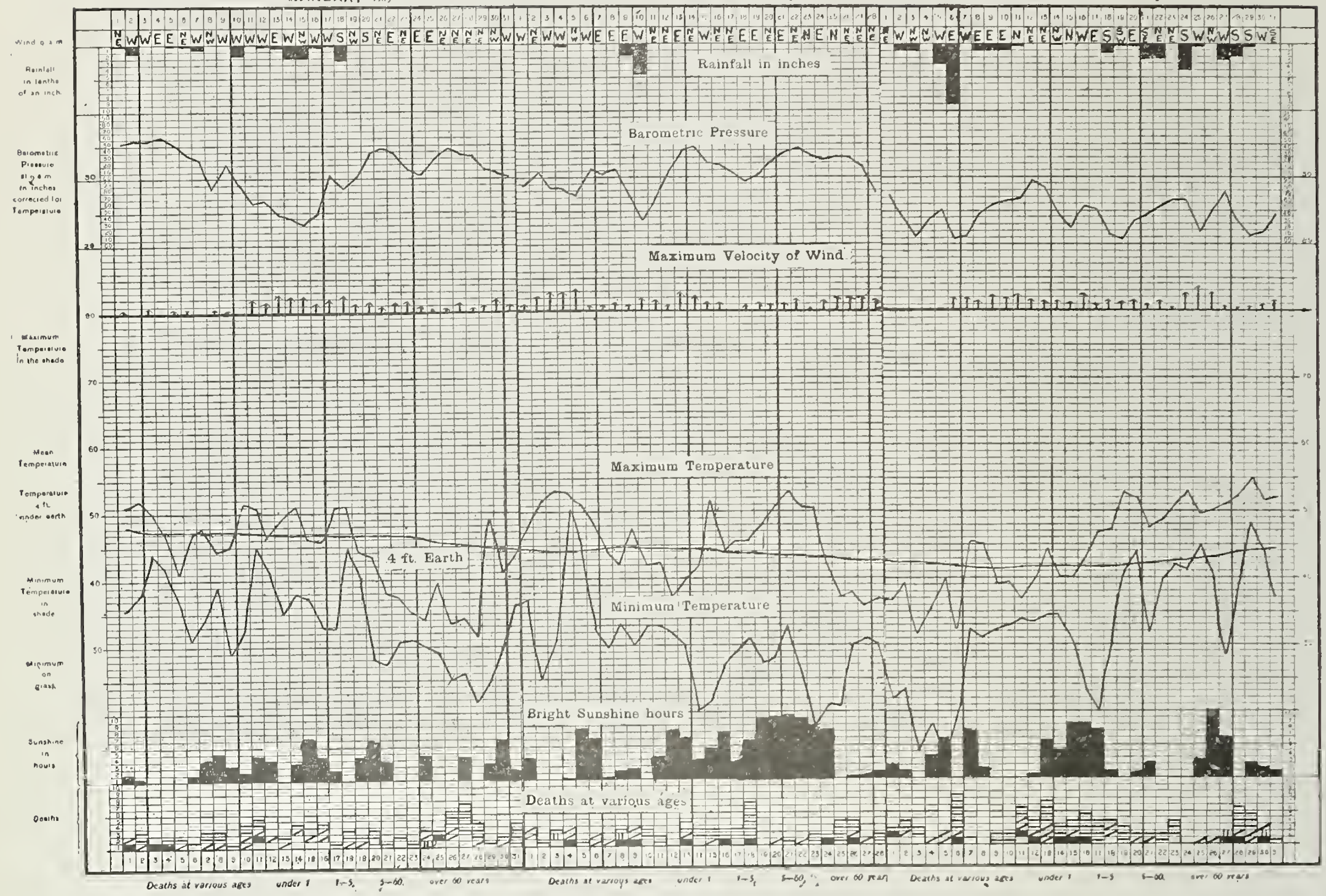
With regard to the sentimental objection, while admitting that the sudden reduction of the body of a loved one to the handful of ashes which the Latin poet says is all that is left of the greatest general, is at first something of a shock, it does not need the imagination of Hamlet to convince thinking persons that cremation is far less horrible than burial. Cremation does in an hour or two what the natural processes of decomposition may take years to accomplish. To us it seems that the inevitable triumph of the grave is much lessened by dissociation from ideas of putrefaction. Tender memory of the dead is more likely to be maintained by the thought that their is no foulness or corruption, but only a small quantity of inoffensive ashes where the remains are buried. . . . "Man hastens the slow work of Nature, instead of retarding it by the hideous coffin in which he rots for months. The flesh is dead, the spirit has fled. The fire that purifies disperses in a few hours that which was a human being and throws it to the wind. It makes of it air and ash instead of loathsome corruption. This is clean and wholesome. Putrefaction underground in that closed box wherein the body changes into a black and stinking pulp is repulsive and abominable. The coffin which descends into that muddy hole grips the heart with anguish, but the pyre which flames under the open sky has about it something great, beautiful and solemn."

Extract from British Medical Journal,—p. 585. 1910.

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
JANUARY 1909

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
FEBRUARY 1909

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
MARCH 1909



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APRIL 1909

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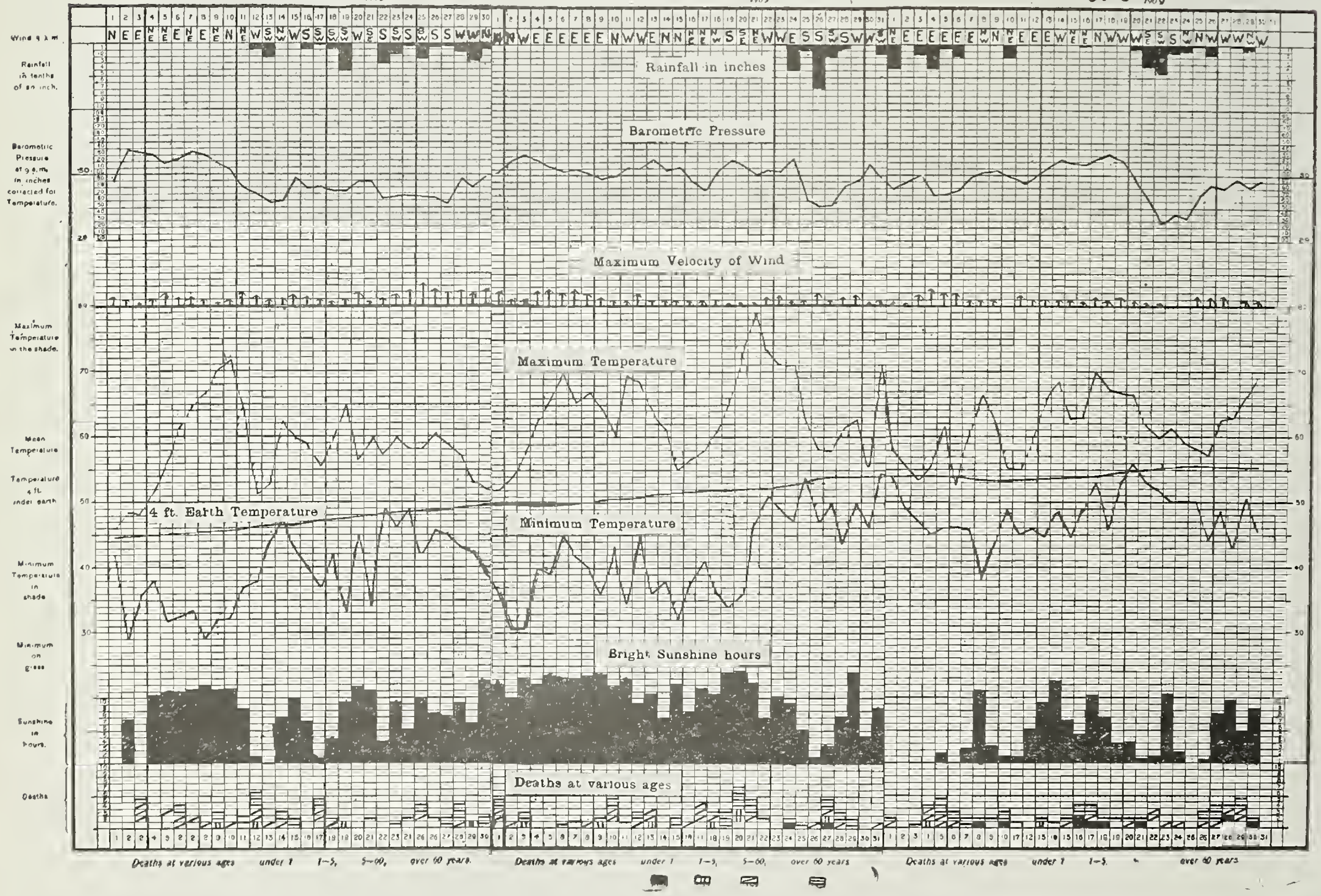
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
MAY 1909

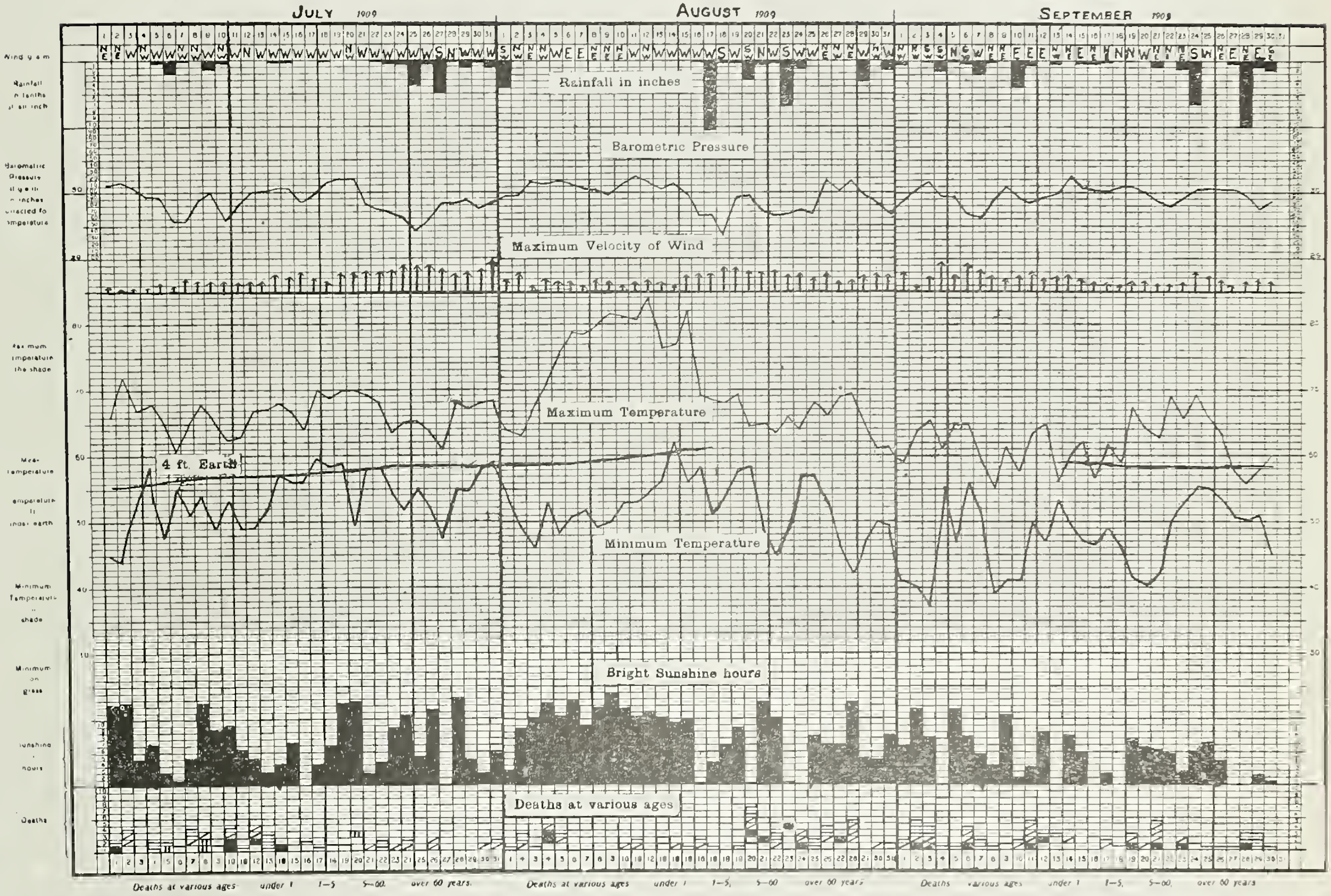
CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
JUNE 1909



CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
JULY 1909

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
AUGUST 1909

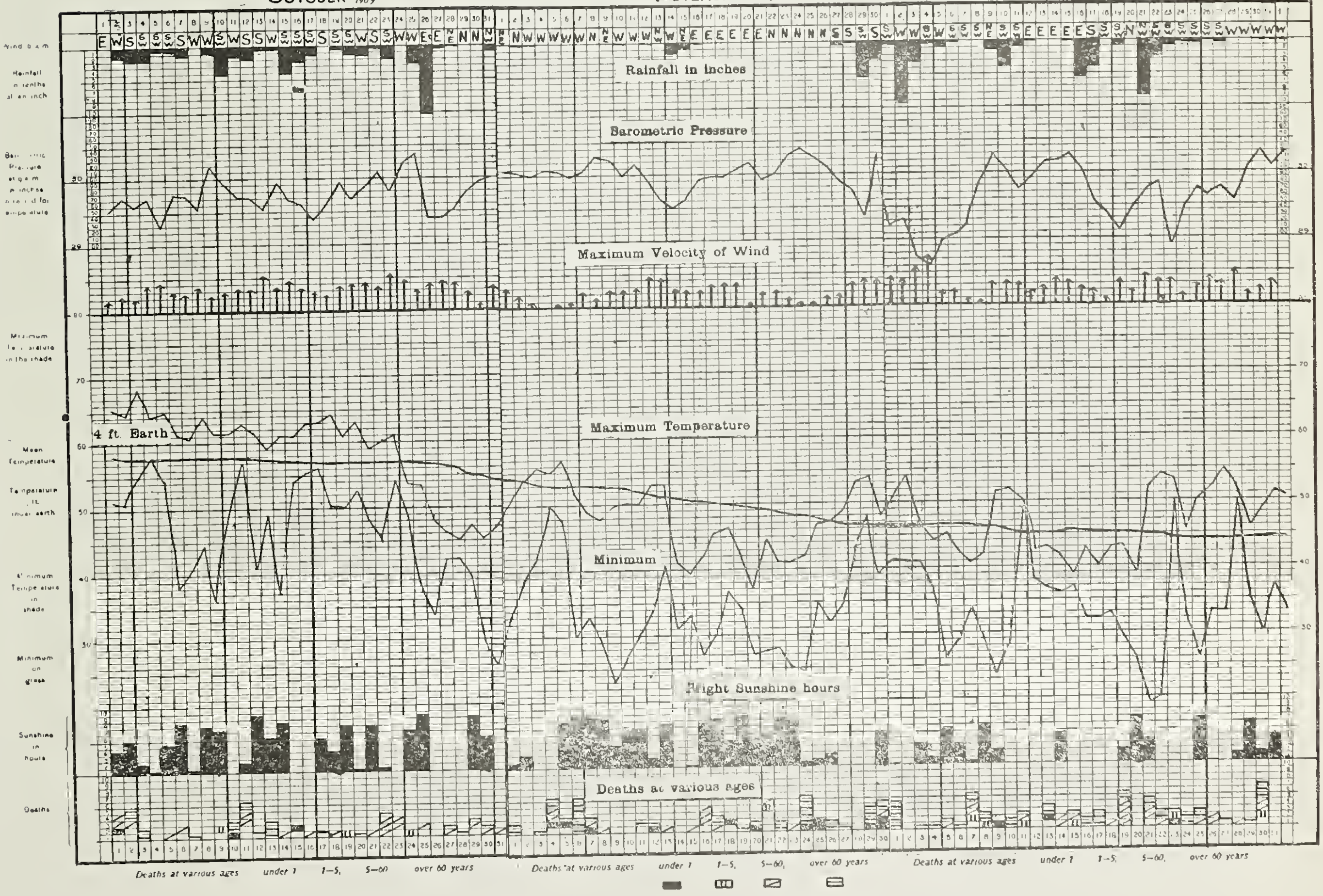
CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
SEPTEMBER 1909



CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
OCTOBER 1909

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
NOVEMBER 1909

CITY OF BATH.
METEOROLOGICAL RECORD FOR EACH DAY OF THE MONTH
DECEMBER 1909



SEASONAL MORTALITY—TEMPERATURE & WEEKLY DEATH RATES.

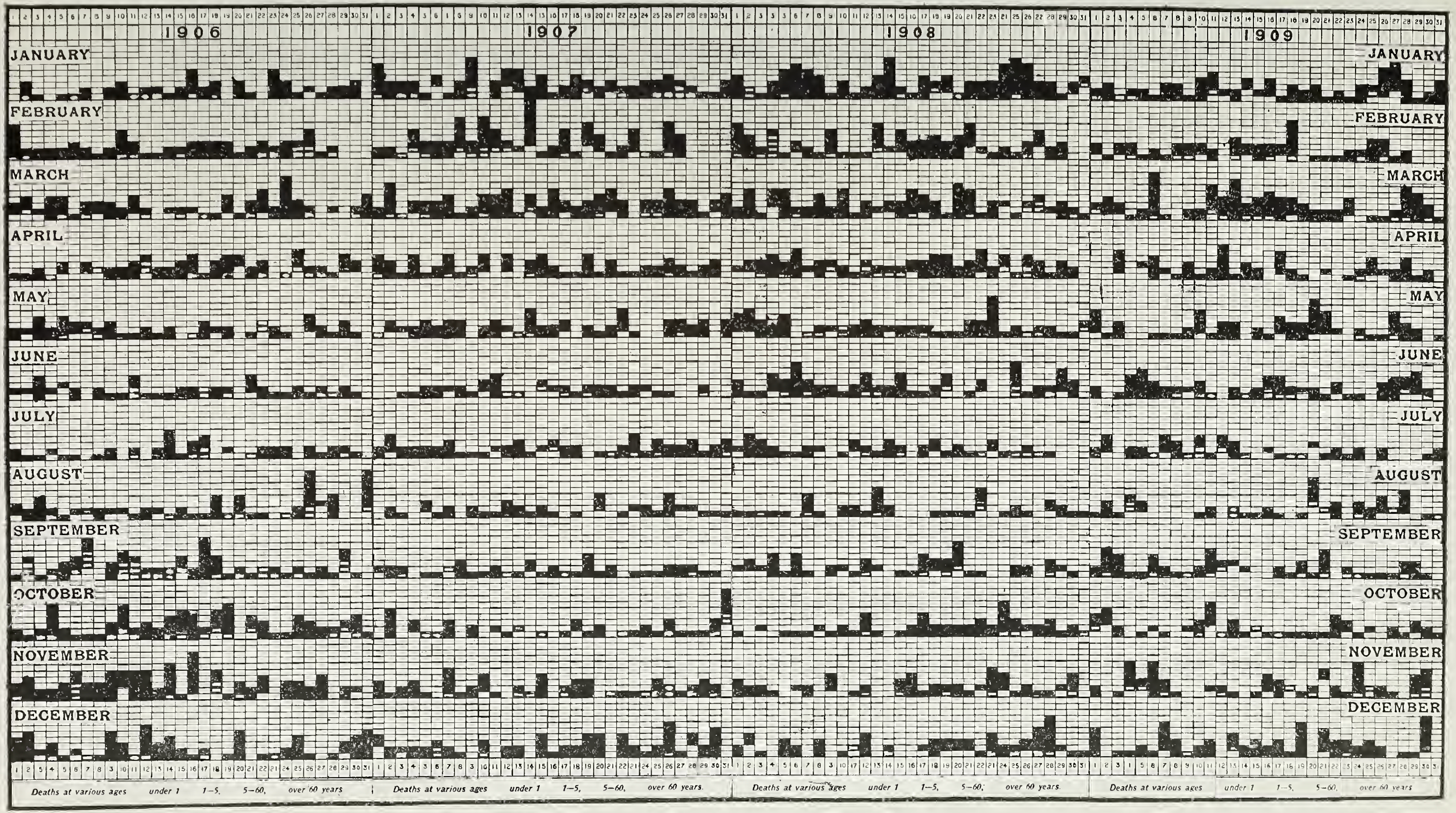
The chart printed on page 48 shows the number of deaths in Bath on each day of the past four years. The actual date of death, not the date of registration, is here recorded. The tables on page 42 will show the mortality for each quarter of the year from various diseases and at various ages, and also the average of five preceding years. The winter months, as is well known, are most fatal to elderly persons, and in most places the summer months are even more fatal to young children and infants, but in Bath we get no regular summer rise in infantile mortality. The chief cause in the fluctuation of the weekly death returns is undoubtedly the temperature, invalids may be kept alive for considerable periods in mild weather, but a cold snap will determine the date of death. This is very evident on looking at the charts of this and previous years. It is, however, unsafe to attach much importance to fluctuations occurring in a small number of observations, but if we examine the returns for London for five years we are on fairly safe ground, and comparing the weekly number of deaths in London with the minimum temperatures of the week preceding registration of death, we find that for each degree below 40°F. the number of deaths among persons over 60 years of age will be about 15 in excess of the average number dying when the weekly minimum was 50°F. Taking the average of five years, the death rate of persons over 60 and under 80 years of age was 44 per 1,000, of that age period, when the weekly mean of the daily minimum was 52°F., it was 89 when the mean was under 32°F., and among persons over 80 years of age the death rates were 138 and 337 respectively, or taking the death rate among persons 60 80 years as 100, when the mean minimum temperature was 52°F., it was 114 at 45°; 152 at 39°; 161 at 35°; and 200 when the mean minimum was below 32°F. Among persons over 80 years of age, taking the death rate as 100 at 52°, it was 127 at 45°F.; 145 at 39°; 204 at 33°; and 244 when the mean temperature was below freezing point. The demands made upon the circulatory system are very much greater in cold weather than in mild weather, the young and healthy are braced up and invigorated, old and feeble persons, being unable to respond to the stimulus, succumb. Hence the death rates recorded weekly will vary enormously in a small district from 5 to 40 per 1,000, but the annual death rate will not be much affected by these variations. (See also page 69).

WEEKLY NUMBER OF DEATHS REGISTERED IN LONDON AMONG PERSONS OVER 60 YEARS OF AGE.

FIVE YEARS, 1905-1909.

Showing Mean and Absolute Minimum Temperature of Air in shade, on the same and preceding week.

Mean of the Absolute Weekly Minimum.	Mean of the Number of Persons who died.				Weekly Mean of the Daily Minimum.		Death Rates of Persons between 60 and 80 yrs. and over 80 years per 1,000 of those ages.			
	Same Week.		Following Week.				Same Week.		Following Week.	
	Age 60-80	80 over.	60-80	80 over.	Temp.	Weeks	Age 60-80	80 over.	60-80	80 over.
22·4°	460	124	505	144	— 32°	20	81	290	89	337
27·0	445	119	440	121	32°-34°	24	78	279	77	283
28·5	401	110	404	105	34°-36°	21	71	258	71	246
30·6	391	107	385	103	36°-38°	32	69	251	68	241
32·2	399	107	380	105	38°-40°	17	70	251	67	246
35·4	339	91	338	86	40°-42°	25	60	213	60	201
36·0	308	77	303	81	42°-44°	14	54	180	53	190
39·8	298	68	282	75	44°-46°	12	53	159	50	175
42·3	263	65	261	64	46°-50°	40	46	151	46	150
46·1	259	60	251	59	50°-54°	37	46	141	44	138
50·7	237	60	237	54	54°-60°	18	42	141	42	126
57·3	240	55	235	53	60° up.	1	42	129	42	124



DAILY RECORDS OF DEATHS, 1906-9.

METEOROLOGY.

Meteorological observations have been regularly made at the three stations equipped by the Corporation, and also at the Royal Literary and Scientific Institution, and at my own Observatory. Sunshine records are taken at Alexandra Park and the Guildhall. The Rainfall is measured at the Monkswood, Batheaston and Charlcombe Reservoirs. Barograms are automatically registered at the Pump Room and Kingswood School. The Kingswood School Chart being kindly sent to me by Mr. W. P. Workman, B.Sc. I am indebted to the numerous rainfall observers whose observations are published on page 50.

Observations are made at 9 a.m., but at the Henrietta Park Station the readings are also taken at 7 a.m. and 6 p.m., and telegraphic reports are transmitted to the Meteorological Office twice daily. Some readings will in future be taken at 3 p.m. by request of the Royal Meteorological Society, these afternoon readings will furnish most important information for visitors to Health Resorts, particularly as to the relative humidity of the air which is at present usually recorded at 9 a.m. only.

Monthly reports are given to the Registrar General, to the Royal Meteorological Society, to British Rainfall, and to the Editor of Symons' Meteorological Magazine; a report is sent weekly to the Meteorological Office. Numerous enquiries from public bodies and private individuals are far as possible answered. Daily records are shown in the charts on page 44, with the deaths recorded on the same day.

It is very difficult to say anything in praise of the Meteorological conditions of 1909, one would rather leave the particulars to be expressed in diagrams and tables. The rainfall was the average of 40 years, and the number of wet days also about the average, but it rained on 58 days between the middle of August and the end of October, leaving only 20 dry days for this holiday period, interfering much with pleasure but beneficial rather than otherwise to general health.

Increasing attention is being paid to the study of the upper atmosphere, and as ærial navigation becomes more popular, funds will be forthcoming for extended investigations.

BATH CENTRAL CLIMATIC STATION, HENRIETTA PARK.

SUMMARY OF METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1909.

North Latitude 51° 23′ 8″, *West Longitude* 2° 21′ 14″ *Estimated Height above Sea Level: Barometer,* 84 *feet; Thermometers,* 70 *feet.*

1909	Barometer.						Thermometers in Stevenson Screen.										Earth Temperatures				Bright Sunshine in hours.
	Mean 9 a.m. corrected to 32°	Absolute Maximum Corrected.	Day of Month.	Absolute Minimum Corrected.	Day of Month.	Range.	Mean Temperature of Air.	Mean of Maximum.	Mean of Minimum.	Absolute Maximum.	Day of Month.	Absolute Minimum.	Day of Month.	Mean of Dry Bulb.	Mean of Wet Bulb.	Relative Humidity.	4 ft. in Gravel. Max.	4 ft. in Gravel. Min.	4 ft. in Gravel. Mean	1 ft. Mean	
Jan. ...	30·110	30·626	4	29·312	15	1·314	39·1	44·2	33·7	52·0	2	21·5	28	38·1	37·0	92	48·0	44·5	46·6	40·6	62·7
Feb. ...	30·073	30·460	14	29·351	10	1·109	37·6	45·4	29·9	53·2	3	18·0	23	35·6	34·2	87	44·8	42·5	43·9	34·9	113·1
March	29·446	29·952	12	29·083	6	·869	42·1	45·1	32·3	55·0	29	13·2	5	39·1	37·5	84	44·4	41·4	42·3	36·4	82·3
April ...	29·912	30·397	2	29·567	27	·830	48·1	58·1	39·2	71·5	10	28·8	2	50·3	47·8	83	49·5	44·6	46·9	48·3	225·5
May ...	30·027	30·319	3	29·544	27	·775	47·9	63·8	41·7	79·0	21	30·3	3	55·5	50·5	70	54·0	49·7	51·7	54·3	320·3
June ...	29·898	30·327	18	29·283	22	1·044	54·1	61·4	47·9	70·0	17	38·0	8	54·9	50·9	75	55·4	53·2	54·2	57·8	126·3
July ...	29·559	30·206	20	29·413	25	·793	59·4	66·5	53·2	72·0	2	44·0	2	60·7	56·5	76	58·4	55·5	57·4	57·8	190·9
Aug. ...	29·943	30·223	11	29·333	18	·890	61·0	71·0	51·9	83·9	12	42·0	28	62·9	58·0	73	61·2	58·6	60·8	63·8	247·7
Sept. ...	29·965	30·230	14	29·621	7	·609	54·4	61·8	47·5	69·2	24	37·0	3	55·1	52·3	82	60·6	58·2	58·9	58·2	129·5
Oct. ...	29·715	30·188	9	29·288	5	·900	52·2	58·7	46·1	68·3	3	26·2	31	53·0	50·7	84	58·0	54·0	56·6	55·3	110·8
Nov. ...	30·003	30·380	24	29·356	29	1·024	39·1	47·9	34·1	57·0	5	23·1	9	39·8	38·7	92	53·8	46·2	50·1	44·2	114·6
Dec. ...	29·590	30·312	30	28·619	4	1·693	40·6	46·9	33·7	54·8	27	19·0	21	40·3	39·0	90	46·5	44·0	45·2	41·2	64·5
Means for Year	29·853	30·302		29·314		0·988	48·0	55·9	40·9	65·5		28·4		48·8	46·1	82	52·9	49·4	51·2	49·4	1788·2

MONTHLY RAINFALL AT VARIOUS BATH STATIONS, 1909.

Mean Monthly Rainfall, Years, 1866—1905.

Observations 9 a.m. daily at all Stations, 1909.	Central Station, Henrietta Pk. N. Latitude, 51° 23′ 8″ W. Longitude, 2° 21′ 14″ 5 in. Gauge. O.D. 67 ft.				Kingswood School. N. Latitude, 51° 23′ 27″ W. Long., 2° 22′ 5″ 5 in. Gauge. O.D. 620 ft.	39, Combe Park. N. Lat. 51° 23′ 30″ W. Long. 2° 23′ 10″ 5 in. Gauge. O.D. 165 ft.	Monkswood. N. Lat. 51° 26′ 19″ W. Long. 2° 21′ 16″ 5 in. Gauge. O.D. 363 ft.	Batheaston. N. Lat. 51° 24′ 23″ W. Long. 2° 19′ 51″ 5 in. Gauge. O.D. 248 ft.	Charlcombe. N. Lat 51° 23′ 49″ W. Long. 2° 21′ 37″ 8 in. Gauge. O.D. 325 ft.	Climatic Station, Statutory Hospital. N. Latitude, 51° 21′ 52″ W. Longitude, 2° 19′ 10″ 5 in. Gauge. O.D. 520 ft.				Royal Literary Institution. N. Lat. 51° 22′ 52″ W. Long. 2° 21′ 21″ 6 in. Gauge. O.D. 74 ft.	Mean 40 Years 1866-1905.
	Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours.	Date.						Rain and Snow Total depth in inches.	Number of Days on which Rain fell.	Greatest fall in 24 hours.	Date.		
January ...	1·17	15	·24	18	1·21	1·18	1·30	1·18	1·26	1·29	12	·22	18	1·20	2·82
February ...	·66	4	·45	10	·55	·62	·62	·59	·69	·76	4	·46	10	0·61	2·24
March ...	3·41	20	·91	6	3·23	3·15	3·32	3·12	3·25	3·65	21	1·00	6	3·48	2·07
April ...	2·13	15	·41	19	2·49	2·51	2·65	2·75	2·39	2·30	16	·47	19	2·21	2·07
May ...	1·56	6	·69	26	1·52	1·59	1·69	1·72	1·40	1·61	6	·84	26	1·61	2·03
June ...	2·68	16	·44	22	3·45	3·43	4·59	3·74	3·19	2·90	16	·49	21	2·97	2·22
July ...	1·95	19	·50	27	2·49	2·47	3·14	2·76	2·50	3·07	18	·68	25	2·39	2·53
August ..	3·22	12	1·06	17	3·01	2·90	2·99	3·19	3·23	3·22	12	1·15	17	3·18	2·81
September	3·12	21	·98	28	2·91	2·66	3·26	3·76	3·18	3·35	21	1·06	28	3·10	2·83
October ...	4·56	25	1·03	26	4·63	4·67	5·40	4·61	4·91	5·39	25	·98	26	4·90	3·05
November	1·21	12	·54	29	·92	1·28	·88	1·03	1·16	1·03	9	·41	29	1·27	2·82
December	4·49	23	·93	2	4·46	4·65	4·83	4·93	4·79	4·47	20	·93	2	4·51	2·99
Totals	30·16	188			30·87	31·11	34·67	33·32	31·95	33·04	180			31·43	30·48

SUMMARY OF SANITARY WORK DONE DURING THE YEAR.

199	Nuisances from detective drains, soil pipes, etc., were abated.
229	,, ,, ,, W.C's. and urinals were abated.
165	,, ,, ,, waste pipes, rainwater pipes, and gullies were abated.
22	,, ,, ,, intercepting traps.
76	,, ,, deficient ventilation were abated.
158	,, ,, defective paving.
167	,, ,, ,, roofs, ceilings, etc.
1	,, ,, ,, cesspool.
28	,, ,, water supply.
22	,, ,, overcrowding.
91	,, ,, accumulations of ashes, etc.
46	,, ,, keeping pigs, fowls, etc.
65	,, ,, various minor causes.
2	,, ,, occupation of cellar dwelling.
6	,, in common lodging houses.
4	,, ,, slaughter houses.
6	,, ,, dairies.
81	,, ,, factories, workshops, and work places were abated.
19	,, ,, homework premises were abated
3	,, was reported to Police.
12	Infringements of Canal Boats Acts were remedied.
137	Premises cleansed and limewashed.
100	Ashbins provided after notice.
67	Smoke observations were made.
71	Matters reported to Surveyor.
6	,, ,, ,, Waterworks Engineer.
643	Workshops and workplaces inspected.
183	Homework premises.
20	Workshops placed on register after inspection.
397	Inspections of dairies, Cowsheds, food stores, etc.
446	,, ,, common lodging houses.
1460	,, ,, slaughter houses.
104	,, ,, offensive trade premises.
104	,, ,, canal boats.
209	Samples purchased for analysis under Food and Drugs Acts.
6	,, of water submitted for analysis, three of which were unfit for drinking purposes. Satisfactory supplies have since been obtained.

GENERAL HOUSE INSPECTION.

The total number of visits made to premises during the year was 6,293. This number includes visits to premises in respect of which complaints were received, houses in which infectious disease had occurred, the inspection of slaughter houses, food stores, offensive trade premises, mews, dairies and cowsheds, common lodging houses, canal boats, factories, workshops, and workplaces, homeworkers premises, house to house inspections, re-inspections, etc.

Systematic house to house inspections have been made in the Dolemeads district, and the Central Area. These two districts have received a good deal of time and attention, particulars of which will be found on pages 54 and 56.

Inspections or re-inspections have also been made in the following localities:—

Albion Cottages	5
Arundel Place	4
Beauford Square	4
Bridewell Lane	5
Calton Road	14
Cheltenham Street	5
Cornwell Buildings	12
Cross Lane	5
Dafford Street	6
Dover Place and Court	6
George's Buildings	4
Hampton Row	17
James' Buildings	4
London Place	5
Lock Cottages	5
Margaret's Hill	6
Morford Street	4

North Parade Buildings, Richmond Place, Rose Hill, Skrine's Place, Summerfield Cottages, Timbrel's Court.

REPORT OF INSPECTOR BLAKE ON THE CENTRAL AREA.

During the year a systematic house to house inspection has been made in this district, and various structural and other alterations have been carried out. A large number of these houses are Tenements, being mostly occupied by the poorer classes ; frequent visits have been made to ensure cleanliness of yards, W.C's., &c., and the prevention of overcrowding.

Special inspections and reports have been made of 1 to 4, Margaret's Passage; 4 and 5, Somerset Street; 1 to 4, Ambury; and 9, 10 and 11, Corn Street with a view to improving the site, these houses are very badly situated, and are without adequate means of light, ventilation, and general sanitation.

Abraham's Court, Peter Street. Considerable improvements have been effected at these premises, the houses (4 in number) having been repaired throughout, and are now occupied by new tenants.

Most houses in this district are structurally in fair condition, but in many instances improvements could be made by the removal of stables and other out-buildings which tend to check efficient light and ventilation.

The keeping of fowls, pigeons, &c., in the smaller yards has been greatly reduced.

The following is a detailed list of streets and houses inspected in this district.

Premises.	No. of houses	Premises.	No. of houses
Abraham's Court ..	4	Margaret's Passage	6
Ambury ..	4	Milk Street ..	36
Avon Street ..	87	New Quay ..	15
Back Street ..	3	Peter Street ..	30
Bolwell's Court ..	5	Somerset Street ..	11
Brimble Court .	4	Southgate Place ..	8
Corn Street ..	33	St. James' Place ..	7
Little Corn Street ..	14	Wine Street ..	4
		Total	271

The above may be classified as follows :—

Reasonably good repair ..	111
Moderately ,, ,, ..	91
Dilapidated	
Capable of repair	49
Incapable ,,	4
	255
Void houses, stores, &c.	16
Total	271

List of structural and other alterations carried out in the central area as the result of special instruction—

Defective drains made good	14
,, Waste pipes made good ..	3
,, Rain water pipes ,, ..	17
,, Gully traps, &c., replaced ..	3
Additional Waterclosets and fittings ..	3
Nuisances from Waterclosets abated ..	45
Drinking water cisterns cleaned, &c. ..	1
Drinking water tap off main provided ..	8
Dustbins provided	61
Yards, &c., paved	30
Overcrowding abated..	2
Houses cleansed	84
Stairs repaired	17
Roofs ,, ...	26
Walls, floors, and ceilings repaired ..	40
Accumulations removed	4
Nuisances from animals abated	12
Matters reported to Surveyor	1
Miscellaneous	28
	399

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1908.

The above order came into effect on January 1st, 1909.

Eighty-two notifications of Phthisis have been received from Medical Practitioners during the year in respect of 75 cases, as follows:—

Poor Law cases ..	31 males ..	17 females.
Voluntary ,, ..	11 ,, ..	16 ,,
	42 males	33 females.
		Total 75

Periodical visits have been made to the homes of the Patients so as to ensure compliance with the necessary precautions. Disinfectants have also been supplied for use in the sputum vessels, &c.

Disinfection of rooms and bedding has been carried out, at houses where patients have for various reasons been removed, the same procedure also being adopted with fatal cases, visits being made to the houses, and disinfection recommended.

Difficulty often arises in tracing the "ins" and "outs" cases of Tramps who enter the Workhouse, and give false addresses of last abode.

HOUSE INSPECTION—DOLEMEADS DISTRICT.

Assistant Inspector Hawkins has been entrusted with the routine inspection of this district. Full details concerning each house being recorded. Two days a week are devoted to this work, the following is his report:—

Systematic house to house inspections and re inspections have been made in the above district during the past year, and defects in drains, W.Cs., yard and basement paving, leaking roofs, etc., have been remedied after notice to the various owners, also, in many instances notices have been served and carried out for the general cleansing and limewashing of premises, as well as notices for several cases of overcrowding which have been found to exist as follows:—

Defective gully traps and waste pipes, 13; Rainwater pipes, 14; W.Cs. without cisterns, 5; Nuisances from W.Cs., 9; defective paving of yards, 25; defective roofs, 20; unclean premises, 27; Nuisances from the keeping of animals, 4; overcrowding, 6; miscellaneous matters, 51.

The following is a list of the houses inspected during the year:—

Alma Cottages	4.	Avon Cottages	5.
Charles Place	8.	Dolphin Cottage	1.
Farmers Terrace	8.	Ferry Lane	27.
Ferry Buildings	8.	Foundry Place	9.
Greenfield Buildings	1.	Newtown Terrace	3.
New Street, East	7.	Petersburg Place	16.
Plato's Buildings	10.	Randall's Cottages	7.
St. George's Place	12.	St. George's Terrace	5.
Summerlays Cottages,	10.	Wellington Place	1.
Winifred Terrace	2.	Woodbine Cottages	5.
York Terrace	8.		

CANAL BOATS ACTS, 1877 and 1884.

In accordance with the circular of the Local Government Board and section 3 of the Canal Boats Act, 1884, which provides that every Sanitary Authority within whose district any Canal or part of a Canal is situate, shall make an annual report to the Board as to the execution of the Canal Boats Acts, 1877 and 1884, and of the Regulations made thereunder, I have to report that during the year 1909 I made 104 inspections of Canal Boats as compared with 106 in the preceding year.

The general condition of the boats examined was fairly satisfactory; many of them are models of cleanliness and it is evident that some of the men take especial pride in having their cabins all that one could wish. The infringements of the Regulations were fewer than usual and none of them of great importance; they were found upon eight boats and were as follows:—

Three certificates were not produced when required.
One boat was improperly marked.
Two cabins required cleansing.
One cabin required repainting.
Three cabins required small repairs (floor, roof, &c.)
One boat required general repairs.
One pump was out of order.

The above defects were all remedied, usually as soon as possible after the attention of the owner had been called to them. It was not necessary to take legal proceedings in any instance.

With regard to other matters upon which the Local Government Board desire information—no notification of the presence of any infectious disease on any boat was received during the year, nor was it necessary to detain any boat for cleansing or disinfection.

There was no new boat registered during the year, nor was fresh registration rendered necessary by structural alterations in any boat previously registered.

Mr. Llewellyn, H.M. Inspector under the Canal Boats Acts, has made special efforts during the past year to obtain information as to the number of boats which are at present in use as dwellings and he estimates that of the total number registered (12,444) only about half that number are so used. With reference to the boats registered by this Authority, I have made recent inquiries as to those which had not been inspected for some time, and find that of the 56 boats upon the Register, twelve have been destroyed and thirty cannot be traced. It is probable that at least half the latter have been broken up; some I am told have been sold and are not plying in this part of the country. Six boats which were registered with other Authorities have been destroyed in Bath; I obtained the certificates and forwarded them to the various Registration Authorities. Many boats are broken up or otherwise put out of use, frequently without the Inspector's knowledge, and consequently their names are not removed from the Register, so that it is difficult to keep an exact record of boats actually in use. The number of boats registered by this Authority and plying on the local waterways does not at present exceed 20. Most of the boats passing through the city are registered elsewhere. Mr. Llewellyn, H M. Inspector, made his usual visits on July 16th and November 4th, but had no fresh observations or suggestions to offer.

Feb. 1910. —— (*Signed*) W. A. CRAVEN.

COMMON LODGING HOUSES.

There are eight Common Lodging Houses on the Register; a new one, which provides accommodation for 20 lodgers, having been opened during the year. Weekly and special inspections have been made at various hours, and the number of visits paid during the year was 446.

The houses require constant attention on the part of the owners to maintain them in a cleanly and satisfactory state. Notices calling attention to the periodical cleansing and limewashing are sent to each owner shortly before the specified time, namely the first week in April and the first week in October, and the work is usually completed within the legal period.

Minor nuisances are found on these premises from time to time, sometimes due to the carelessness or neglect of the occupants, but upon being pointed out to the owners the defects are usually at once remedied. The Common Lodging houses provide accommodation for 211 persons.

FACTORIES, WORKSHOPS and HOMEWORK.

1.—INSPECTION (including Inspections made by Sanitary Inspectors or Inspectors of Nuisances).

Premises.	Number of Inspections.	Number of Written Notices.
Factories (including Factory Laundries) ...	33	4
Workshops (including Workshop Laundries)	358	35
Workplaces	252	23
Total ...	643	62

2.—DEFECTS FOUND.

Nuisances under the Public Health Acts:—

Particulars.	Number of Defects Found.	Number of Defects Remedied.
Want of Cleanliness	23	all
,, Ventilation	6	,,
Overcrowding	3	,,
Drainage of Floors...	4	,,
Other Nuisances	24	,,
Sanitary accommodation { insufficient	2	,,
Sanitary accommodation { unsuitable or defective...	19	18
Total	81	80

3.—OTHER MATTERS.

		Number.
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act (s. 5)	Notified by H.M. Inspector	12
	Reports (of action taken) sent to H.M. Inspectors...	10
Underground Bakehouses (s. 101):—In use at the end of the year ..		16

Homework: List of Outworkers' (s. 107):—

	Lists.		Outworkers.
Lists received—Wearing Apparel	32	...	288
Addresses of Outworkers { forwarded to other Councils ...	...	84	..
Addresses of Outworkers { received from other Councils ...	...	15	...
Paper Bags and Boxes	1	...	1
Total ...	33	99	289

Notices served on Occupiers as to sending Lists 80

Inspection of Outworkers' Premises:—

	Instances.	Notices served.
In Unhealthy premises (s. 108)	19	19
Number of Inspections of Outworkers' Premises	...	183

Workshops on the Register (s. 131) *at the end of the year*:—

Total at end of 1908	428
Discontinued in 1909	7
	421
Added to Register in 1909	20
Total number of Workshops on Register	441

FACTORY AND WORKSHOPS ACT, 1901.

At the close of the year there were 441 Workshops on the Register classified as follows :—

CLOTHING, &c.—

Milliners	36
Tailors	69
Boots, &c.	29
Underclothing	3
Furriers...	2
Corset Makers	3
Dress	109
	243

FOOD and DRINK—

Bakers and Confectioners ...	23
Sugar Boiling	4
Beer Bottling	2
Sausage Works	1
Flour Packing	1
Mineral Waters	1
	32

BUILDING TRADES—

Builders	0
Builders' Merchant ...	1
Carpenters	7
Painters	2
Plumbers, &c.	8
Brick and Pottery Works ...	2
	26

ENGINEERING—

Engineering Works ...	12
Ironfounder	1
Surgeons' Mechanics ...	2
	15

FURNITURE, &c.—

Cabinet Making & Upholstery	15
French Polisher	1
Wood Turners	6
Carvers and Gilders ...	5
Picture Framers	5
Trunk Maker	3
	35
Forward ...	351

Brought forward ...	351

CONVEYANCES, &c.—

Wheelwrights and Coachbuilders	11
Coach Painters	2
Saddlery	4
Black and Whitesmiths ...	10
Cycle Repairs	4
	—31

JEWELLERY, &c.—

Watch Repairing... ...	11
Jeweller	1
Engraver	1
	—13

LAUNDRIES and DYERS.

Hand Laundries	12
Dyers	2
	—14

PRINTING, &c.

Letterpress Printing ...	8
Bookbinding	6
	—14

OTHER TRADES—

Cooper, &c.	2
Basket Makers	2
Firewood	1
Cork Cutter	1
Cutler	1
Scale Maker	1
Tinsmith	1
Umbrella Makers... ...	4
Leather Currier	1
Wall-paper making ...	1
Provender and Corn Mills ...	3
	—18
Total ...	441

SANITARY CONDITIONS OF WORKSHOPS.

The Local Authority is the Authority responsible for the sanitary condition of workshops and workplaces within its district. " Sanitary condition " includes (*a*) Cleanliness, (*b*) Want of ventilation, (*c*) Overcrowding, (*d*) Want of drainage of floors, (*e*) Sanitary accommodation.

(*a*) CLEANLINESS. Twenty-three workshops or workplaces were found to require the walls or ceilings, or both, cleansed and limewashed. In each case the work was satisfactorily completed, frequently upon verbal request alone.

(*b*) WANT OF VENTILATION. Six workrooms were found to be insufficiently ventilated; extra means of ventilation have been provided The standard of air space adopted is that laid down in Section 3 of the Act, which prescribes 250 cubic feet per head during ordinary working hours. In many of the workrooms the provisions of the Act were only just complied with, there being practically no excess of air space. On the whole the means of ventilation are not inadequate; the difficulty is that the means provided are not used as they should be, the workers themselves being chiefly to blame in this respect. Very frequently most of the available openings are carefully blocked.

(*c*) OVERCROWDING. Two workrooms and one workplace were slightly overcrowded; additional rooms were obtained in all instances.

(*d*) WANT OF DRAINAGE OF FLOORS. Three laundry floors were found insufficiently drained. Notices were served on the owners and new floors were laid with proper drainage.

(*e*) SANITARY ACCOMMODATION. One workshop was without sanitary accommodation, in two instances the W.C. accommodation was insufficient, and in nineteen workshops the W.C. appliances were unsuitable or defective. Seven new W.C's. were provided and the defective fittings, &c., have all been repaired.

Twenty-four other nuisances were caused by defective drains, waste pipes, defective roofs and gutters, and other minor matters, which have all been remedied.

The number of workshops on the Register at the end of the year was 441, an increase of thirteen on the previous year. There were seven names taken off the register owing to removals and 20 new workships have been added.

Twelve notices were received from H.M. Inspector of Factories during the year calling attention to the following sanitary defects in Factories or Workshops:—

One workshop insufficiently ventilated, one overcrowded, ten requiring cleansing, one defective floor. In most cases the work was completed before the receipt of the notice from the Factory Inspector.

Fourteen notices of occupation of new workshops were also received.

HOMEWORK. The importance of this branch of factory work may be estimated from the fact that nine sections of the Act are devoted to regulations affecting homework. These are intended to prevent work being carried on in dwellings which are injurious or dangerous to the health of the persons working therein, through overcrowding, want of ventilation or other insanitary conditions. The homework in this City consists chiefly in the making of wearing apparel; there are one or two paper bag makers and a few umbrella makers. Lists containing the names and addresses of 289 homeworkers were received from 24 employers, and 183 visits were paid to the houses in which homework is carried on. Very few nuisances were found to exist upon the premises visited, the houses generally being in a cleanly and satisfactory condition. Eighty notices were served upon occupiers of workshops to send in lists of outworkers, but these are treated with indifference although the employers are aware that they are liable to a penalty of 40/- for contravening this Section of the Act.

No notices were sent prohibiting homework in unwholesome premises and no cases of infectious disease were notified in homeworkers' premises during 1909.

SALE OF FOOD AND DRUGS ACTS, 1875-1907.

REPORT FOR THE YEAR 1909.

During the year I purchased 209 samples under the above Acts for the purpose of analysis by the Public Analyst, as compared with 207 in the previous year. The number of samples taken was at the rate of 4·2 per thousand. or one for every 238 persons. The rate for London (in 1908, the latest year for which figures are available) was 5·3 per thousand, or one for 188 persons, and in the Provinces 2·6 per thousand, or one for every 391 persons.

The articles submitted were:—Milk, 90; Butter, 54; Coffee, 12: Sugar, 10; Cream, 7; Jams, 7; Lard, 5; Mustard, 5; Cheese, 4; Golden Syrup, 3: Pepper, 3; Lime Juice, 2; Margarine, 2; and one each of Arrowroot, Cocoa, Condensed Milk, Cornflour, and Honey. Milk, which is one of the most important foods, and also one of the most easily adulterated or improverished, accounts for 43 per cent. (or if cream and condensed milk are included, 46·9 per cent.) of the total samples analysed. Of the 90 samples taken, 12 were certified as being, either in fat or solids not fat, below the standard fixed by the Board of Agriculture. The percentage of such samples was 13·9, which is a decided improvement on the preceding year when 18·7 were reported against. One informal sample contained a Boric preservative to the amount of ·07 per cent. or 50 grains per gallon; further samples were taken but these were found satisfactory. The milkseller's attention was afterwards drawn to the circular issued by the Board of Agriculture with respect to Preservatives in Milk, and warned against their further use. One sample contained 10 per cent. of added water, and 1 per cent. of Boric Acid compounds. Proceedings were taken in this case, and a fine of 20/- and costs was imposed. The other samples certified as not genuine were so slightly below the standard, that the Committee thought it undesirable to take proceedings. The variation from the prescribed standard of quality was not so marked as in former years, but the number of samples which just pass, or are slightly below, the minimum standard is greater than in previous years. This cannot be regarded as satisfactory, and is referred to in the recently issued Report of the Local Government Board as follows:—

> "The heavy adulteration practised 30 years ago has prac-
> "tically disappeared, but if we may judge by the number of
> "samples which are reported as "poor," "very poor," or as
> "just reaching the legal limit of 3 per cent. of fat, all of which
> "have to be returned as genuine, the practice of robbing good
> "milk of a large proportion of its cream so that it may just
> "escape condemnation by the Public Analyst is on the increase."

The number of samples taken locally of this description leads me to conclude that the quality of the milk has been reduced so that it barely complies with the minimum limits prescribed by the Sale of Milk Regulations, 1901. The Report of the Board continues:—

> "It will be seen that a large illicit profit can be made without
> "risk when milk is thus systematically impoverished. Some
> "magistrates appear to consider the limit for fat fixed by the

"Regulations as representing milk of average quality, and "regard all milk coming within 5 or 10 per cent. of that limit "as passable. It must, however, be remembered that milk of "good average quality contains more nearly $3\frac{1}{2}$ per cent. of fat "than 3 per cent. which has been fixed for the purposes of "the regulations referred to."

The use of preservatives in Cream was the subject of a Special Report to the Local Government Board by Dr. Hamill, who carried out an exhaustive series of experiments and analyses, as a result of which he recommended, that a maximum limit of boron preservative calculated as boric acid (H_3BO_3) should be fixed, and that the presence of such preservative should in all cases be declared.

In consequence of a circular issued by the Board in October, I took several samples of cream, all of which were certified to be free from any adulterant other than "Boron Compounds;" this preservative was present in each sample in amounts varying from ·06 to ·3 per cent. In no case was the amount in excess of the limit recommended in the Departmental Committee's Report. The use of preservatives, especially in dairy produce, seems greatly on the increase, and is gradually being extended to many different classes of food. The analyst for West Sussex writes:—

> "What with boric preservatives in butter, margarine, "cream, ham, bacon, sausages, and fish; salicylates in jams "and preserves; benzoates in sauces and temperance bev-"erages; fluorides in butter; sulphites in potted meats and "beer; formalin in milk and even in meat; foods that ought "to be perishable are made to keep in the shops and are made "indigestable and dyspepsia producing in our bodies."

The whole question of the use of preservatives in food is one which requires the fullest and most careful consideration, and the sooner the law is strengthened in this respect, the better it will be for the health of the public. None of the 52 samples of butter examined were reported against, but many of them contained the maximum, or nearly the maximum amount of moisture permissible, and in many of the samples a preservative other than salt was present.

The provisions of the Butter and Margarine Act, 1907, have been generally complied with. I have, however, to again call attention to the growing practice of selling margarine under the name of "butter-mixture," the vendors complying with the law by putting up the substance in a wrapper marked "margarine." I have reason to believe that a large quantity of "margarine" is disposed of as "butter" under similar conditions.

I have, as in previous years, followed the practice of purchasing a number of samples for analysis without going through the formalities required by the Acts, and have frequently proved its usefulness, though "in many instances it is only by the exercise of untiring vigilance that operations can be brought to a successful issue."

Two applications were made to me during the year to take samples under the Fertilizers and Feeding Stuffs Act, 1906, but as an official sampler had not been appointed by this Authority, the applicants were referred to the County Council.

Guildhall, January 9th, 1910. W. A. CRAVEN.

DAIRIES, COWSHEDS AND MILKSHOPS.

There were 397 inspections of Dairies and Milkshops made during the year and the usual supervision as to cleanliness was given to the premises and utensils. At the close of 1909 there were 75 registered dairymen and purveyors of milk in the City, being an increase of four on the preceding year. Nine persons made application to be registered as dairymen, and after the usual inspection of the premises and such alterations had been carried out as were deemed necessary to render them suitable for the sale of milk, the names of the persons were placed on the register. Three of the applications were from persons taking over businesses already established, and six were in respect to new businesses. There were no prosecutions under the Dairies Order during the year.

The Dairies and Milkshops are generally well conducted, but there are far too many small general shops where milk is sold under conditions which are very unsatisfactory. It is almost impossible to prevent the contamination of milk in a shop where all sorts of goods are sold, but more stringent regulations are required before we can put a stop to this practice.

The number of registered Cowkeepers remains the same as in 1908, viz: 8, and the condition of the farms is practically unaltered. I hope to revise the report on the farms within the City, this is on similar lines to the Slaughter House Report. Several of the farms require bringing up to a higher standard of sanitation; the paving of the sheds and yards, and the ventilation, in some cases leave much to be desired. Notices are sent periodically to the Cowkeepers calling their attention to the Regulation as to cleansing and whitewashing of cowsheds, and this work has generally been promptly carried out.

Too little attention is given by the Cowkeepers to the removal of the manure from the yards adjoining the sheds. Frequently this is allowed to accumulate until it becomes a nuisance and a notice has to be served on the owner to compel him to remove it. Manure should be at once removed as far as practicable from all cowsheds or milk stores. Unfortunately the Local Government Board would not sanction a regulation whereby we could have compelled all dung to be removed to a specified distance within a given time.

An inspection of the cattle at the dairy farms in the City and the farm premises was made in July by the Veterinary Inspector, the Medical Officer of Health and the Inspector of Nuisances.

The number of animals examined was 183, of which 141 were in milk. The animals generally were in a healthy condition, there being only three which it was thought advisable to temporarily exclude from the herds on account of cowpox The experience of previous years as to the absence of tuberculosis amongst the cattle was found to be well maintained. The cows are not kept continuously in the sheds and in many cases are allowed to remain in the fields throughout the year, being brought in only for milking.

SLAUGHTER HOUSES.

These premises received a good deal of attention during the year, special reference having been made to them in the letter received from the Local Government Board after the Boundaries Extension Inquiry.

Inspections of all the slaughter houses were made by the Medical Officer of Health and myself; on some occasions we were accompanied by Aldermen Phillips and Vincent and Councillor Evans, members of the sub-committee appointed to inquire into this subject. A detailed report in which the condition of each slaughter house is described and illustrated by plans and photographs was prepared, and the following summary, dated September 25th, was presented to the Committee :—

" There are two licensed slaughter houses which comply with our present requirements, and twenty-three registered slaughter houses dealt with in this report. Of this number only four have an open space between the lairs and slaughter houses :— Nos. 4, 31, 34, and 43. In eighteen cases the lairs are in direct communication with the slaughter houses, and one has no lairage. In seven the lairs are so situated that it is necessary for the animals to pass through the slaughter house to the lairs :—Nos. 1, 7, 16, 17, 19, 22, and 25. In no case is a separate properly constructed cooling room provided ; the carcases are often left in the slaughter house over night. We wish to draw particular attention to this fact. We consider that the entrance to the slaughter house should be separated from the lairs and pens, used for cattle and sheep, by a clear unroofed space of at least five feet in width, and that the walls of every slaughter house should be rendered in cement to a height of at least six feet. The slaughter house should not be in the vicinity of stables. We think that all the registered slaughter houses should be brought, as far as possible, up to the standard demanded for licensed slaughter houses.

Our present Bye-laws do not give us power to insist on these conditions, but we believe that it would be in the public interest to demand such powers, and power to close slaughter houses which cannot be made to comply. Possibly some of the butchers might combine to build a series of private slaughter houses to replace those demolished. The objections to a central position for well conducted slaughter houses do not outweigh the advantages.

We classify the slaughter houses as follows :—

Class 1. Those which have an open space separating them from the lairs and which comply with the usual modern requirements, or which could be made to do so at a comparatively small outlay. These are Nos. 12, 31, 34, 35, 43, 47, 48, 51.

Class 2. Those in which it would be necessary to carry out extensive structural alterations in order to obtain an intervening open space, or which for other reasons could not be considered as satisfactory as those in Class 1. These are Nos. 1, 4, 7, 17, 18, 19, 22, 23, 25, 26, 39, 53, and 56.

Class 3. Those which cannot be made fit without being re-arranged or rebuilt. These are Nos. 16 and 52.

With one exception all the slaughter houses have City water laid on, and in most of them it is drawn direct from the main.

Only four have the surface of the inner walls rendered with cement to a height of six feet. One has recently been cemented on three sides. In all the other slaughter houses the walls are of rough masonry and limewashed.

Nine of the slaughter houses have stables adjoining or within the same curtilage.

The foregoing classification should be considered in conjunction with the notes in detailed report.

The full report and summary were considered by the Sanitary Committee, and an abstract was forwarded to the Butchers' Association for their consideration. A deputation from the Association attended a Special Meeting of the General Purposes Committee of the Sanitary Committee on December 14th, 1909, when a schedule of additions or alterations was presented by their Surveyor, Mr. H. A. Fry. The alterations specified in the schedule will, if properly carried out, greatly improve the condition of the slaughter houses; the principal alterations are as follows :—

Premises to be re-arranged, new roof to be provided, partition walls to be removed, &c., and other extensive structural alterations	2
Open lofts over slaughter houses to be removed or sealed off	10

Lattice doors between lairs and slaughter houses to be replaced by close fitting doors	3
Lairs to be rebuilt or so altered as not to communicate directly with slaughter house	3
Doorways between lairs and slaughter houses to be walled up	2
Louvred lantern ventilators or raised roofs to be provided to lairs, where the latter cannot be cut off from the slaughter house by an open space	8
Stables to be disconnected from slaughter house ..	1
Lairs which communicate directly with slaughter house to be put out of use	4
New lairs to be provided	2
Louvred lantern ventilator to fix in slaughter house ..	1
Walls to be rendered with cement to a height of 6 ft. ..	19

Only one slaughter house required no alteration.

In addition to the foregoing many minor improvements will be carried out.

The usual notices calling attention to the bye-law with respect to limewashing, etc., were sent to every occupier of a slaughter house. The bye-laws generally have been well observed, and it is seldom necessary to serve notices upon the owners or occupiers.

In one case, where unregistered premises were used for slaughtering purposes, proceedings were taken and a fine of 10/- and costs was imposed.

It was necessary to apply for a magistrate's order to justify the destruction of certain diseased meat, and at the hearing of the case the offender was fined £5 and costs.

The following is a list of meat and other food destroyed as being diseased, unsound, or unwholesome :—

Beef, 7 cwt., 2 qrs. The carcase of 1 sheep. Pork, 1 ton, 1 cwt., 3 qrs., 8 lbs. Fish, 19 boxes cured Codlings. 5½ cwt. Soles. 2 boxes Hake. 4 boxes Pollack. Two barrels of Oysters. Fruit, 20 boxes of Plums. 1 box of Oranges.

In every case of a carcase being condemned, the organs were destroyed, and in cases where the organs only were diseased, these were destroyed.

CONCLUSION.

There was no serious outbreak of disease during the year 1909 calling for special comment. A study of the principal table of causes of death, page 39, will show that deaths from preventable causes were considerably below the average of the preceding ten years, the returns for this period being given in the end columns. If we compare the deaths at various age periods we notice that there is a great saving of life in recent years, particularly during the first half of life when persons are far more susceptible to the influences of general environment than at later periods.

The corrected annual death-rate, 12·6 per 1,000, is surprisingly low if we remember that Bath is a resort for invalids, many of whom taking up their residence here at or beyond 60 years of age. The variation in the weekly death-rate is of course very great, from 5 to 25, and this variation is almost entirely due to conditions which are universally prevalent. Weekly death-rates are calculated on the assumption that the deaths which occur in one week, continued in the same proportion throughout the year, would produce the stated rate per 1,000 as an annual death-rate. The chief inference to be drawn from a weekly death-rate is that a certain number of persons have had their deaths retarded by favourable or hastened by unfavourable climatic conditions. The daily death rate is of course still more erratic. If we examine the chart on page 48 we may see that on 157 days there was no death in Bath—giving a negative death-rate simulating Immortality. On 22 days there were seven deaths, which, if continued daily throughout the year would give an annual death-rate of 51 per 1,000. It is not safe to draw conclusions from the annual death-rate of a small population, such as a community of 1,000 persons, and for the short period of one week—the weekly death-rate of a city of 50,000 population presents about the same probability of error.

In endeavouring to estimate the influence of temperature upon the death-rate I have taken the returns for London, which has a population nearly one hundred times greater than Bath; the results are stated on page 46 for the five years, 1905-9. The number of deaths and the death-rates per 1,000 of the various age periods, in weeks of varying temperature, being grouped to show the influence of temperature. By the mean absolute minimum temperature is meant the mean of the lowest temperatures recorded in that series of weeks under consideration. For example, there were 20 weeks in the five years during which the mean minimum temperature for the week was below 32° F.; the absolute minimum varied from 12·1° to 27·6° F., the mean of the twenty weeks was 22·7. There were 24 weeks when the mean minimum temperature was between 32° and 34°, the absolute minimum varying from 17·9° to 30·4°, the mean of the absolute weekly minimum being 27°.

I have also endeavoured to ascertain the most fatal hour, As a medical student I was told that deaths most commonly took place about 3 a.m., when the attendants got tired and the fire low. This is also the coldest hour of the twenty-four. This would show that the hour of death was influenced by temperature in the same direction as the day of death. The coldest hour, like the coldest day, claiming most victims. As far as I can ascertain from the Register of the Royal United Hospital, which was most carefully kept by the late Dr. Hopkins, and previously by Dr. Barter, the most fatal hour is 5 p.m. After Dr. Hopkins' death, these particulars were not recorded; recently I have been unable to get the Register for purposes of my investigations.

The Health Department has been reorganised during the year and may now be considered as comprising five sub-departments worked by separate staffs, with duties clearly defined in some respects but overlapping so much as to make them more or less interdependent. The sub-departments are—1. Sanitary Inspecting, including the protection of the food supply, inspection of premises, abatement of nuisances, cleansing and disinfection. 2.—Health Visiting for the prevention of Infantile Mortality by giving instructions to mothers and by investigating the causes of all deaths of infants. 3.—The Medical Inspection of School Children and the amelioration of unhealthy conditions which are commonly neglected during school life, forming the subject of a separate Report. 4.—The hospital treatment of general infectious and tubercular diseases. 5.—The clerical and statistical sub-department, including meteorology.

The last mentioned may to the uninitiated seem the least important of these sub-departments, but as a matter of fact very little progress was made in the prevention of disease until accurate records were kept of the facts observed and the work done. Without the publication and circulation of Health Reports it would have been impossible to have reduced the crude death-rate of Bath from 25·6 per 1,000 of the first seven years of which we have records, 1838-44, to 16·2 per 1,000 which is the record of the past seven years and positively proves a saving of no fewer than 470 lives on each of the last seven years.

The work of the Health Visitor is supplemented by various voluntary Associations. Occasional meetings are also held for mothers, when helpful demonstrations and addresses are given by Miss M. Shickle and other ladies interested in the work. Five such meetings were held during the year, Milk Street Mission Room being kindly placed at my disposal for the purpose. The Baby Visiting Association has been formed with the idea of bridging over the interval between infancy and school life. The word baby being used, in the school sense, to signify a young child over one and under five years of age.

The principal feature of the sanitary work of 1909 has been a systematic house to house inspection of tenement houses. Inspector Blake was appointed definitely with the view of making him responsible for a regular inspection of the Central Area, including St. Michael's Parish, and it is his duty to report all insanitary conditions found in his district. He is instructed to make an inspection of all courts at least once a month and of all rooms of tenement houses in the central district at least once a quarter, except where rooms are known to be well kept. He also makes the necessary inquiry concerning cases of tuberculosis reported under the Local Government Order of 1908, giving advice as to the precautions to be taken to prevent infection and carrying out disinfection after the removal or deaths of notified cases. His report is given on page 54. Assistant Inspector Hawkins is performing similar duties in connection with the Dolemeads district and will gradually extend the area under regular inspection so as to include the tenement houses of Holloway and Claverton Street courts. Assistant Inspector Burt, acting under the direct supervision of Mr. Craven, is making inspections in East Walcot. House to house inspection is now being very thoroughly carried out in Bath.

The question of dealing with the difficulties of the Central Area by means of a building scheme has been frequently before the Authority but neither Dr. Brabazon nor I felt justified in representing this district as an unhealthy area to be dealt with under Section 1. The question has been considered and on page 12 I give an outline of the Scheme submitted by the City Surveyor, but the Scheme was submitted to show what might be done if it were considered best to perpetuate the use of this district for workmen's dwellings, when it is much better adapted for business premises and, when, under modern conditions of locomotion more desirable sites for dwellings are brought within easy reach. As I have before pointed out there is no overcrowding in the Central Area, and most of the houses are commodious and well built. Many persons who have seen our "slums" want to know if these are the only examples of slums we can show them. They would not be called "slums" elsewhere. Our real difficulties are not with the houses or locality, but with the complications of multiple ownership, when the responsibility for small repairs has been thrown on a leaseholder, subject to a heavy ground rent, the leaseholder being very frequently a widow of small means dependent upon rents for her sole income. The wealthy owner of the ground rents, which are frequently one-third the total rent, cannot at present be made responsible for keeping the property in a habitable condition, he having contracted himself out of his legal liability.

We were unfortunate in proceedings taken, early in the year, to close some houses which I consider to be about the worst houses in Bath, and no further action has been taken under Part 2 of the Housing of the Working Classes Act, but no doubt under the new Act we shall be able to enforce a standard more in accord with modern ideas.

I have not attempted to deal in this Report with the great engineering projects connected with the water supply and sewerage of the City. The City Council have adopted the recommendations of the Waterworks Committee relative to the protection of new sources of supply, as recommended by Mr. Fox, and have authorized application to be made to the Local Government Board for sanction to borrow £8,500. The Inspector of the Board has held an Inquiry into the application of the Corporation for sanction to borrow the sum of £215,000, for carrying out the scheme of sewerage and sewage disposal adopted by the Council. The Board suggested certain modifications. These modifications have been adopted by the Council, and it is considered that no substantial point remains to be adjusted. All the requirements of the Board having thus been complied with, the Provisional Order for altering the Boundaries of the City may be expected at an early date.

I have again to acknowledge the very great assistance I have received from the City Surveyor's Department, particularly in that part of this Report which deals with Housing and Town Planning. Mr. Craven has also been of the greatest possible assistance in every direction, and I think we may regard the Junior Staff as promising good work in the future.

Finally I have to record my sincere thanks to the Chairmen and Members of the various Committees of the Council for the very careful consideration they have given to the reports of their Officials.

I remain,

Your obedient servant,

W. H. SYMONS.

Guildhall, Bath.
March 7th, 1910.